UB (TMS/UCP) Software User's Manual Replacement Guide for 3.0.2.5P2

This Replacement Guide gives instructions for inserting update pages in UB (TMS/UCP) Software User's Manual (SUM) with the following control number and date:

     C   UB3.0.2.5:SUM1.0   14 April 1997

To update the UB (TMS/UCP) SUM, *remove* the indicated pages and *replace* with the new pages as indicated in the following. (Note: All replacement pages have a date of 10/15/97.)

Remove (from 4/14/87 SUM):	Replace with:
Table of Contents Pages i - xiv (Volume 1 & Volume 2)	TOC Pages i - xiv (Volume 1 & Volume 2)
Pages A31 - A90	A31 - A90d
Pages D1 - D32	D1 - D28
Pages F19 - F32	F19 - F32b
Add - following page I 50:	J1 - J6
Pages P1 - P2	P1 - P2
Pages P7 -P10	P7 - P10b
Pages S101 - S108	S101 - S108
Pages T1 - T2	T1 - T2
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Air Tasking

Menu Location: SUPPORT TDAs

See Also: ALERT LOG, INCOMING MSG LOG [F8], LOG MGR INCOMING, LOG MGR OUTGOING, Message Logs (Procedure), OUTGOING MSG LOG [F9], PASSDOWN WATCH LOG, REPORT LOG

The SUPPORT TDAs Air Tasking option displays a cascading menu containing two options:

- **ATO Msg Log**—initiates an application to handle Air Tasking Order Confirmation message (USMTF ATOCONF) data.

- **Airspace Control**—initiates an application to handle Airspace Control Order message (USMTF ACO) data.

Each option is described in a separate section within this document.

ATO Msg Log

Use the ATO Msg Log option to access, display and manage air tasking orders received through external communications channels.

The system is currently capable of handling USMTF ATOCONF messages. Reference to "ATO" in this document is understood to mean standard ATOCONF format unless otherwise stated.

About ATO Messages:

Each ATO message contains air mission tasking information for a specified period of time, commonly 24 hours in duration.

- ATOs are stored by the starting DTG specified in the MSGID and PERID lines in the message.

- Original messages (i.e., the first received for a given DTG) are saved as CHANGE.0000.

- Subsequent messages are saved as CHANGE.0001, CHANGE.0002, etc.

- ATOs are saved by the system *only* if the newly received message has not been previously saved.

- The system automatically combines the original and change messages for each DTG as a separate MERGE message which can be viewed as raw

text and used for plot control. The MERGE message cannot be transmitted.

- An ATO can contain numerous Task Unit "segments." (A Task Unit segment represents the specific air tasking assignment for a particular squadron or other air-capable unit.)

- Each Task Unit segment consists of one or more missions. For example, a Task Unit might be assigned three missions—two missions that involve striking particular targets, and the third mission that patrols a particular area.

- The system stores ATO Task Unit segments in one or more 100-line message "sections" to allow complete or partial ATO transmission over tactical communications.

- The system stores the ATO message header data, which appears above the first Task Unit, as a separate section.

- The system stores Remarks (RMKS) data, which typically follows the last Task Unit, as one or more separate sections.

- The system is capable of receiving ATO messages sent via standard E-mail. E-mailed messages can be addressed to either "JMCIS" or "ATO," and can be up to 30,000 line in length.

ATOs may be accessed to:

- View ATO mission data for planning, execution and monitoring operations.

- View ATO message header information and raw data prior to transmission.

- Transmit complete ATOs or ATO sections to other locations.

- Delete sections from a stored ATO, or to delete entire ATOs from the database.

ATO Mission data may be viewed in three ways:

- ATO message raw text.

- Geographical plot of targets and mission locations.

- Summary of mission data for individual missions.

Air Tasking Orders Window

The top level AIR TASKING ORDERS window (shown below), is accessed from the System Chart or any Chart Inset using the SUPPORT TDAs: AIR TASKING: ATO MSG LOG cascading menu option.

> **NOTE:** Separate Air Tasking Order user interfaces can be invoked from the **SUPPORT TDAs** menus on different charts at the same time to consider different aspects of the ATO.

> The System Chart tactical display should be used to monitor current ATO operations. Use a separate Chart Inset to do "what if" actions with ATOs. This will help maintain situational awareness on the System Chart tactical display.

The AIR TASKING ORDER window is open and available whenever the ATO application is running. This window may be minimized if desired without affecting any related ATO plot or raw text displays.

Viewing ATO Data

ATO data can be presented at three levels of detail on the AIR TASKING ORDER window. Each view provides a different set of operations on ATO data, making the AIR TASKING ORDERS window a three-in-one operator interface.

The three levels of AIR TASKING ORDERS window data views are:

*   **ATO List View**—lists all available messages and changes. Permits selection of a message for further display and filtering operations.

*   **Task Unit View**—lists all task units in the selected ATO. Permits handling of individual message sections.

*   **Mission View**—lists all missions in the selected ATO. Permits mission data filtering and display, as well as mission level plot control.

An important feature of the AIR TASKING ORDERS window is that it permits the operator to select the level of detail for the geographical plot control. For example, if all missions in an ATO are desired, the quickest way to do it is to plot from the ATO List view. For access to plot control on individual missions, use the features of the Mission view.

The following figure shows the choices available in navigating through the three views via the ATO List view.

ATO List

| Select ATO |

"View Task Units"   "View Missions"

Task Unit List

| All Task Units From Selected ATO |

Mission List

| All Missions From Selected ATO |
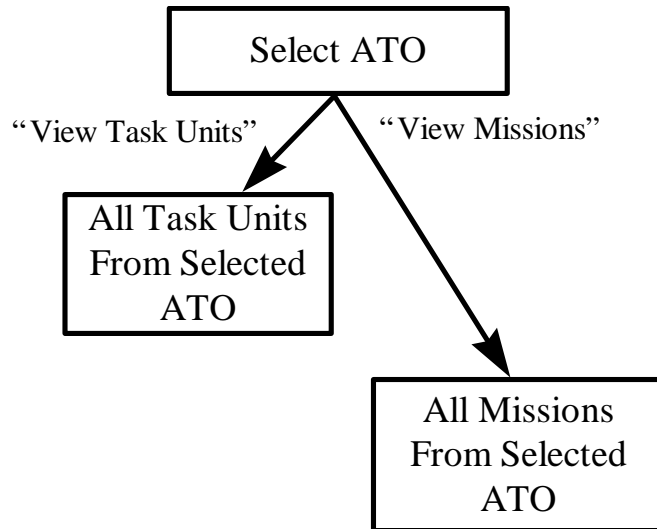
Air Tasking Orders Window Views

This section describes the data, pop-up menus, and frequently used operations available using each of the three ATO data views.

ATO List View

The ATO List view, shown below, lists all ATOs available in the ATO message log, including any changes that have been received.

The list also includes the "merged" form of each ATO message which, on the initial sort, is shown immediately after the original message for the DTG. Each MERGE is the result of automatically updating an original ATO based on all of the changes that have been received for that DTG. On the initial sort, changes for the DTG are listed after the MERGE message line.

The original and change messages are not affected by the merge and can be viewed in their "as-received" form. The MERGE ATO is identical to the original ATO until at least one change has been received for that DTG.
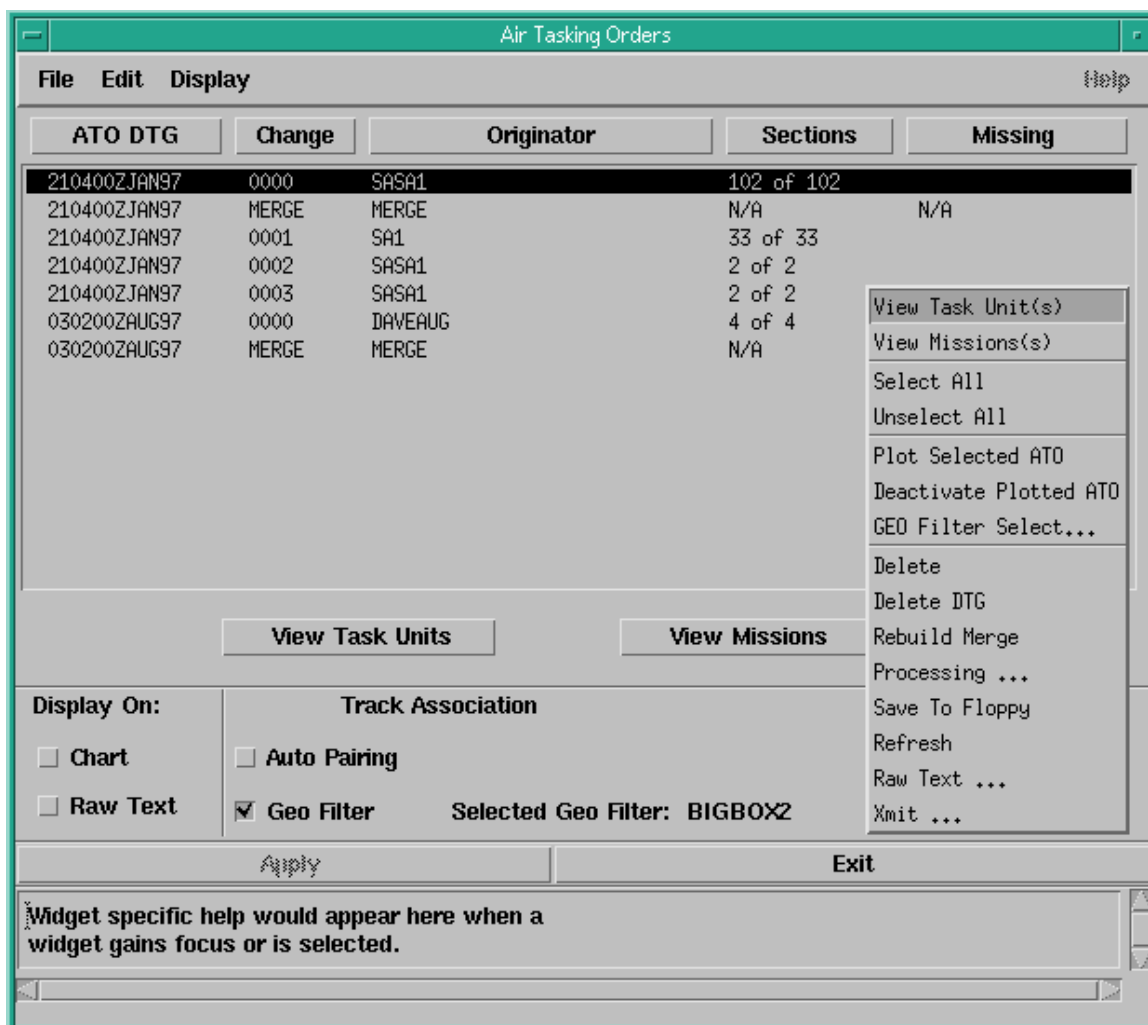
ATO List View Data

ATO DTG

Starting DTG for each message and its MERGE. For each DTG, there will be at least two entries, the original and the MERGE. Other messages that are received with a DTG that is already in the database will be added after the MERGE.

Change

Message sequence for the indicated DTG. The first message will be listed as CHANGE 0000. Following the MERGE for that DTG, subsequent messages are saved as CHANGE 0001, 0002, etc. The "next available" change number is assigned to the newly received message.

For example, if three changes (CHANGE 0001, 0002, and 0003) were previously stored, in addition to the original (CHANGE 0000), the "next available" change number would be CHANGE 0004. However, if an

operator manually deleted CHANGE 0002, then the next available change number would be CHANGE 0002.

Originator

Message originator code that appears in the ATO MSGID line. Depending on current doctrine, it may be the duty code for the person who releases the ATO and not the name of the originating command. Different Originator codes may be used on successive messages with the same ATO DTG.

Sections

Total number of message sections that have been generated by the system and the sequence number of each line out of that total.

Missing

1) If some of the sections are missing from an ATO message, this column provides information about the missing sections.

2) If three or fewer sections are missing, the section numbers for all missing sections are shown in the column.

3) If more than three sections are missing, the section numbers of the first three missing sections are shown, followed by three dots to indicate there are more sections missing.

ATO List View Pop-up Menu

Following the name of each menu option is a set of numbers which indicate the quantity of ATO list lines that may be active to access that option, plus any other restrictions that apply. For example, (0+) i.e., "zero or more," means that the option is always available regardless of the number of ATOs selected, while (1) means that the option is available only when exactly one ATO is selected.

> VIEW TASK UNITS (1, Not Merge)
Presents the Task Unit view for the selected ATO.

> VIEW MISSIONS (1)
Presents the Mission view for the selected ATO.

> SELECT ALL (0+)
Highlights all ATO list lines to make them eligible for other operations.

> UNSELECT ALL (0+)
Removes highlighting from all ATO list lines.

> PLOT SELECTED ATO (1)
  Causes symbols for all targets and mission locations in the selected ATO to be plotted on the chart from which the Air Tasking Order application was launched. See the *ATO List View Actions* section for additional details.

> DEACTIVATE PLOTTED ATO (1)
  Removes plotted symbols for the selected ATO from the chart.

> GEO-FILTER SELECT (0+)
  Opens a dialog window containing a list of operator-defined geo-filters from which one may be selected. The selected geo-filter will be active whenever the Geo Filter option is selected in the Track Association area. See *Activate Geo Filter* for additional details.

> DELETE (1+)
  Opens a confirmation window. Selecting "Yes" removes the selected ATO list lines from the message database. See the *ATO List View Actions* section for additional details.

  CAUTION: This operation will cause the data files that are represented by the selected ATO List lines to be permanently deleted from the database.

> REBUILD MERGE (1)
  Updates the MERGE based on the original and all currently stored changes for the selected ATO DTG. See the *ATO List View Actions* section for additional details.

> PROCESSING: (0+)
  Presents a dialog window which allows selection of various data import and export options. See the *ATO Processing* section for additional details.

> SAVE TO FLOPPY: (1)
  Saves a single, selected ATO to floppy disk in DOS format for use on a PC/DOS compatible system. The DOS filename is created from the ATO's DTG and Change number, as follows:

DOS filename = 'MMddhhh.ccc'
where:

MM	=	month (01 – 12)
dd	=	day (01 – 31)
hh	=	hour (00 – 23)
mm	=	minute (00 – 59)
ccc	=	rightmost 3 digits of ATO Change number

The operator can continue with normal ATO window operations as the ATO is being written to the floppy. The following restrictions apply:

1. There must be an operable floppy drive configured on the system.

2. The ATO message to be saved must be less than 1.44 megabytes long.

3. A DOS formatted floppy must be correctly inserted in the floppy drive prior to using the "SAVE TO FLOPPY" option.

4. If an error occurs during the save operation, the "SAVE TO FLOPPY" option must be reselected from the ATO menu.

5. A MERGE cannot be saved to floppy disk.

> REFRESH (0+)

Updates the ATO list with the currently held set of ATO messages and changes. Use this option to view recently received messages or to update the list after performing delete operations.

> RAW TEXT (1)

Presents a separate window which shows the text of the USMTF ATOCONF message*(s)*, whether an original, change or MERGE. See the *ATO List View Actions* section below for additional details.

> XMIT (1 - 10, No Merges)

Presents a dialog window that allows entry of message header data and provides for transmission of the selected ATOs. See the *ATO List View Actions* section below for additional details.

ATO List View Actions

> Select a Single ATO Message for Display

1. Select one ATO line from the list. The selected line is highlighted with a black background.

     a. The initial list is sorted by DTG. ATO List lines can be sorted using any column header button. Clicking the column header button again will invert the sort order. Repeated clicking of the column button toggles the sort order. By sorting on the ATO DTG, the most recent messages can be placed at the top or bottom of the list.

     b. With one message selected, additional operations are available. The Display On: Chart / Raw Text check box options can be selected and applied. For an original or change ATO, the View Task Units and View Missions buttons also become available. Display operations using these controls are discussed below.

2. For a MERGE ATO, the VIEW MISSIONS button and menu options become available. The Task Unit view is not available, because MERGE is not stored in the Task Unit section format used for ATO message transmission.

> Select a Different ATO Message for Display

After plotting an ATO, select another ATO. Either plotting or selecting another view will cause the plotted symbols of the first ATO to be removed from the tactical display. All settings for the first ATO are lost.

NOTE: Separate Air Tasking Order user interfaces can be invoked from the **Support TDAs** menus on different charts at the same time in order to consider different aspects of the ATO.

The System Chart tactical display should be used to monitor current ATO operations. Use a separate Chart Inset to do "what if" actions with ATOs. This will help maintain situation awareness on the System Chart tactical display.

> ATO Geographic Plot

To plot the targets or mission locations of all the missions in the selected ATO(s) use one of the following methods:

• Select the Display On: Chart check box and click APPLY.

• Select the Plot Selected ATO pop-up menu option.

Symbols are plotted to represent the geographic location of targets and mission locations contained in the original, change, or merged ATO—as selected on the ATO List.

> View ATO Raw Text

To view the text of the selected ATO, use one of the following methods:

1.   Select the Display On: Raw Text check box option and click APPLY.

2.   Select the View Raw Text pop-up menu option.

A separate window is opened which shows the text of the original, change or merged ATO as selected on the ATO list.

> ATO Processing

1.   Choose the pop-up menu Processing: option or the File: Processing: pull-down menu option.

2.   The ATO Import / Export dialog window is presented to allow import or export of files between the ATO database and either DOS floppy disk or CTAPS server (import only).

   -    When ATO data is imported, the information can be viewed in the AIR TASKING ORDERS window.

3.   Select the Refresh pop-up menu option to update the ATO List.

For each ATO message imported from CTAPS, the USER IN appears in the CHANNEL column of the INCOMING MESSAGE LOG window.

These operations are described in greater detail in the ATO Processing section.

> ATO Transmit

1.   Ensure that a communications channel is configured (i.e., KERMIT, OTCIXS, or Serial interface type), and that it is turned ON.

   -    See the COMMUNICATIONS option to configure and activate comms channels.

2.   Select up to a maximum of ten original or change messages for transmission to other units. MERGE messages cannot be transmitted and, if any are selected, transmit features are not available.

> **NOTE:** The selection mode is either individual (click on one line to highlight it) or multiple (press the left mouse button and the keyboard Ctrl key and then drag the cursor across the desired ATO List lines). For contiguous selection, the Ctrl key does not need to be depressed.

> If a group of sequential lines is selected using the drag method, and then other non-sequential line selections are needed, hold the Ctrl key while clicking on the additional lines. ATOs may be individually deselected by holding the Ctrl key down and clicking the selected ATO List line again.

3. Choose the pop-up menu Xmit: option or the File: Xmit: pull-down menu option. The MESSAGE HEADER DIALOG window opens to allow entry of required data for transmission of the selected messages.

   - Refer to XMIT, Appendix A, Summary of Common Operations, for information about the HEADER EDIT window and other transmission details.

   - If no valid channels exist when transmitting ATOs, a warning window appears.

   - With multiple original and/or change messages selected for transmission, Task Unit and Mission views are not available.

> ATO Delete

1. Select one or more of the listed ATOs.

2. The selected ORIGINAL, CHANGE and/or MERGE messages may be deleted from the database using the pop-up menu Delete ATO option or the pull-down menu option.

> **CAUTION:** This operation will cause the data files that are represented by the selected ATO List lines to be permanently deleted from the database.

> Delete DTG

1. Select one ATO.

2. ATOs (versions and merge) associated with the selected DTG will be deleted from the system.

> Rebuild MERGE

   After deleting any change messages from the database, the MERGE message can be rebuilt to incorporate only the remaining messages.
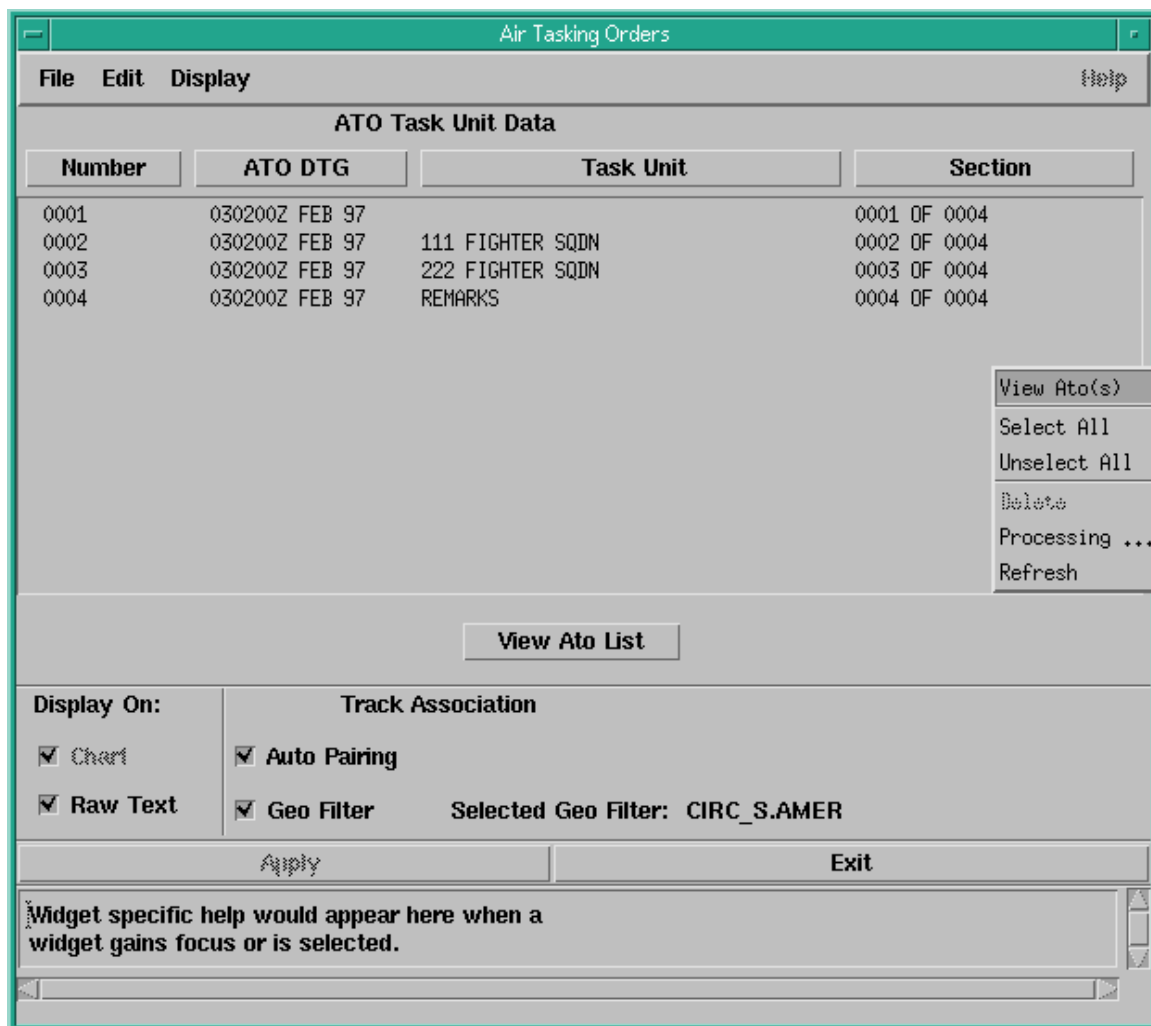
   1.   Select the desired MERGE message.

   2.   Choose the Rebuild Merge pop-up menu option.

   Only one MERGE may be selected for rebuild at one time.

Task Unit View

   The Task Unit view (below) lists all of the message sections present in the selected original or change ATO message. Each line in the list represents a message section that is the smallest component of the stored message that can be transmitted individually.

   Sections are not a characteristic of the USMTF format. The system divides original and change messages into sections for communications handling. Message sections can contain a maximum of 100 lines for transmission over tactical communications channels. MERGE messages are not stored in sections and cannot be transmitted.

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ─                           Air Tasking Orders                         ▪ │
├───────────────────────────────────────────────────────────────────────────┤
│  File    Edit    Display                                           Help   │
│                           ATO Task Unit Data                              │
│  ┌──────────┬──────────────┬─────────────────────────┬──────────────────┐ │
│  │ Number   │   ATO DTG    │      Task Unit          │    Section       │ │
│  └──────────┴──────────────┴─────────────────────────┴──────────────────┘ │
│   0001      030200Z FEB 97                            0001 OF 0004         │
│   0002      030200Z FEB 97   111 FIGHTER SQDN         0002 OF 0004         │
│   0003      030200Z FEB 97   222 FIGHTER SQDN         0003 OF 0004         │
│   0004      030200Z FEB 97   REMARKS                  0004 OF 0004         │
│                                                                           │
│                                            ┌──────────────────┐           │
│                                            │ View Ato(s)      │           │
│                                            │ Select All       │           │
│                                            │ Unselect All     │           │
│                                            │ Delete           │           │
│                                            │ Processing ...   │           │
│                                            │ Refresh          │           │
│                                            └──────────────────┘           │
│                          ┌──────────────────┐                             │
│                          │  View Ato List   │                             │
│                          └──────────────────┘                             │
│  Display On:          Track Association                                    │
│  ☑ Chart    ☑ Auto Pairing                                                │
│  ☑ Raw Text ☑ Geo Filter    Selected Geo Filter:  CIRC_S.AMER             │
│  ┌──────────────────────────┬──────────────────────────────────────────┐ │
│  │         Apply            │              Exit                        │ │
│  └──────────────────────────┴──────────────────────────────────────────┘ │
│  Widget specific help would appear here when a                            │
│  widget gains focus or is selected.                                       │
└───────────────────────────────────────────────────────────────────────────┘
```

Task Unit View Data

The first section in the list holds the ATO message header data that precedes the first Task Unit. Multiple Task Units can occur following this header section, each having one or more 100-line sections depending on the extent of the unit's tasking.

The last group of sections holds the ATO message remarks data. The Airspace Control Order can be embedded in these sections.

Number
Number of each section in the sequence of sections derived from the ATO message.

ATO DTG
Corresponding ATO starting DTG specified in the MSGID and PERID lines in the ATO message.

Task Unit

Name of the unit tasked to execute the missions assigned in each ATO TASKUNIT segment. A TASKUNIT segment may be divided into multiple sections, each with a maximum of 100 lines of text.

Section

Number of each section relative to the total number of sections in the message.

Task Unit View Pop-up Menu

Following the name of each menu option is a set of numbers which indicate the quantity of section list lines which may be active in order to access that option. For example, (0+) i.e. "zero or more," means that the option is always available regardless of the number of sections selected, while (1) means that the option is available only when exactly one section is selected.

> VIEW ATOS (0+)
Returns to the ATO List view.

> SELECT ALL (0+)
Highlights all section list lines to make them eligible for other operations.

> UNSELECT ALL (0+)
Removes highlighting from all section list lines.

> DELETE (1+)
Presents a confirmation window. Selecting "Yes" removes the selected sections from the message database. See the *Task Unit List View Actions* section for additional details.

> **CAUTION:** This operation will cause the data files which are represented by the selected ATO List lines to be permanently deleted from the database.

> PROCESSING (0+)
Presents a dialog window which allows selection of various data import and export options. See the *ATO Processing* section for additional details.

> REFRESH (0+)

Updates the section list with the currently held set of sections for the selected ATO(s). Use this option to view recently received sections or to update the list after performing delete operations.

If sections are missing (for example, if only 10 of 26 appear in the list), use the Refresh pop-up menu option to update the list.

Note: Transmission errors may occur and all sections may not be received. It may be necessary to request (re)transmission of missing segments or the entire message.

> RAW TEXT (1)

Opens a separate window that shows the text of the USMTF ATOCONF message, whether an original, change or MERGE. See the *Task Unit View Actions* section below for additional details.

> XMIT (1+)

Opens a dialog window to enter message header data and provides for transmission of the selected sections. See the *Task Unit View Actions* section below for additional details.

Task Unit View Actions

> View Section Raw Text

Only one section line may be selected. To view the text of the selected message section:

1. Select the Display On: Raw Text check box option and click APPLY.

2. Select the View Raw Text pop-up menu option; or

3. Select the Display: View Raw Text pull-down menu option. A separate window is presented which shows the text of the selected section.

> Section Transmit

Individual message sections or groups of sections can be transmitted to other units. This permits tailoring of ATO distribution such that subordinate units that do not need the entire ATO can receive only the needed sections. **Note:** If the entire message was never received, ATO data cannot be plotted.

1. Ensure that a communications channel is configured to send binary output (KERMIT or OTCIXS interface type), and that it is turned on.

   - Refer to the COMMUNICATIONS option from the COMMS menu to configure and activate comms channels.

2. Select any number of message sections for transmission to other units.

3. Choose the pop-up menu Xmit: option or the File: Xmit: pull-down menu option. The message header dialog window is presented, allowing entry of required data for transmission of the selected sections.

4. (Optional) Before transmitting a section, view the message and its header (Raw Text option on the pop-up menu or check box).

   - Refer to XMIT in the Unified Build Software User's Manual, Appendix A, Summary of Common Operations, for information about the HEADER EDIT window and other transmission details.

   - If no valid channels exist when transmitting ATO segments, a warning window appears.

> Section Delete

1. Select one or more of the listed sections.

2. The selected sections may be deleted from the database using the pop-up menu Delete option or the pull-down menu option.

CAUTION: This operation will cause the data files represented by the selected section lines to be permanently deleted from the database.

Mission View

The Mission view (below) shows a list of all of the missions in the selected original, change or MERGE ATO message. Each line in the list represents an individual air mission that may include multiple aircraft sorties.

The Mission view allows the most detailed control over the geographic display of ATO data. This view provides access to mission data using separate data windows that describe each facet of a selected mission's tasking. ATO raw text is not available from the Mission view because message text is not stored at the mission level of detail.

Msn Num	Callsign	Pkg ID	Num & Type A/C	Msn Type	Mode 2	Mode 3	Start Time	End Time	Actv
21704F	SHELL11	–	1KC10	AR	----	1004	210630ZJAN97	211200ZJAN97	N/A
21803F	WHISPER11	–	1U2	REC	----	1010			N/A
21800F	BRIGHAM11	–	1E3	AEW	----	1005	210530ZJAN97	211630ZJAN97	No
21600F	JOLLY11	–	2MH53J	SOF	----	1424	210600ZJAN97	210730ZJAN97	No
21601F	JOLLY21	–	2MH53J	SOF	----	1202	210707ZJAN97	210007ZJAN97	N-
21602F	JOLLY31	–	2MH53J	SOF	----	1426	2		

Air Tasking Orders — ATO Mission List

Menu (overlaid):
- View Ato(s)
- Select All
- Unselect All
- Plot Selected Mission(s)
- Deactivate Plotted Mission(s)
- Update PIF Table..
- GEO Filter Select...
- Pair Tracks to Targets
- Pair Targets to Tracks
- Processing ...
- Refresh
- Mission Data ...

(partially visible rows behind menu)
21801F	VACUUM11	–	1RJ135J	RECRJ	----	1006
21107F	HOGG11	–	20A10	XCAS	----	1172
21109F	HOGG31	–	20A10	XCAS	----	1176
21108F	HOGG21	–	20A10	XCAS	----	1174
21110F	HOGG41	–	20A10	XCAS	----	1200
21103F	VIPER41	–	3F16C	XCAS	----	1025
21200F	VIPER81	–	3F16C	INT	----	1037

View Ato List

Display On:

☐ Chart
☐ Raw Text

Track Association

☐ Auto Pairing
☑ Geo Filter   Selected Geo Filter: BIGBOX2

Apply   **Exit**

Widget specific help would appear here when a
widget gains focus or is selected.

Mission View Data

MSN ID
Identification number for each mission as specified in the ATO
MSNDAT line for that mission.

Callsign
Callsign for each mission as specified in the ATO MSNDAT line for that
mission.

Pkg ID
Package identification code for each mission as specified in the ATO
MSNDAT line for that mission.

Num & Type A/C
Number and type of aircraft to be used on the tasked mission as specified
in the ATO MSNDAT line for that mission.

Msn Type

Mission type code for each mission as specified in the ATO MSNDAT line for that mission.

Mode 2 IFF

Mode 2 IFF/SIF code for each mission as specified in the ATO MSNDAT line for that mission.

Mode 3 IFF

Mode 3 IFF/SIF code for each mission as specified in the ATO MSNDAT line for that mission.

Start Time

Time on target DTG for missions with a TGTLOC line or RECDATA line, and mission start time DTG for missions with a MSNLOC line.

End Time

Time off target DTG for missions with a TGTLOC line, and mission stop time DTG for missions with a MSNLOC line.

Actv

Status of the target or mission location symbol plot. "No" is the default, meaning that the target or mission location symbol is not plotted on the chart. When a mission is plotted, this field will change to "Yes". If the mission data is not plottable, the field will contain a "N/A."

Mission View Pop-up Menu

Following the name of each menu option is a set of numbers that indicate the quantity of ATO list lines which may be active in order to access that option. For example, (0+) means that the option is always available regardless of the number of missions selected, while (1) means that the option is available only when exactly one mission is selected.

> VIEW ATOS (0+)
   Returns to the ATO List view.

> SELECT ALL (0+)
   Highlights all mission list lines to make them eligible for other operations.

> UNSELECT ALL (0+)
   Removes highlighting from all mission list lines.

> PLOT SELECTED MISSIONS (1+)
  Causes symbols for all targets and mission locations for the selected missions to be plotted on the chart from which the Air Tasking Order application was launched. See the *Mission View Actions* section for additional details.

> DEACTIVATE PLOTTED MISSIONS (1+)
  Removes plotted symbols for the selected missions from the chart.

> UPADATE PIF TABLE (1+)
  Based on user-selected missions, generates corresponding Mode2 and/or Mode3 nicknames in the TRACK NICKNAME table. See the *Mission View Actions* section for additional details..

> GEO-FILTER SELECT (0+)

  Opens a dialog window containing a list of operator-defined geo-filters from which one may be selected. The selected geo-filter will be active whenever the Geo Filter option is selected in the Track Association area. See the *Activate Geo Filter* section for additional details.

> PAIR TRACKS TO TARGETS (0+)
  Plots a pairing line between selected tracks and any plotted targets or mission locations that are correlated to the tracks on the basis of IFF code. Only selected tracks are paired. If a track has a pairing line, but is not currently selected, the pairing line will be deleted. See the *Mission View Actions* section for additional details.

> PAIR TARGETS TO TRACKS (0+)
  Plots a pairing line between the target or mission location symbol of selected missions and any plotted tracks which are correlated to the missions on the basis of IFF code. Only selected targets are paired. If a target has a pairing line but is nor currently selected, the pairing line will be deleted. See the *Mission View Actions* section below for additional details.

> PROCESSING (0+)
  Opens a dialog window to select data import and export options. See the *ATO Processing* section for additional details.

> REFRESH (0+)
  Updates the ATO list with the currently held set of ATO messages and changes. Using this option with the Mission View active does not affect the Mission View data or displays.

> MISSION DATA (1)

Opens a separate window that shows data relevant to the selected mission in a table format. See the *Mission View Actions* section for additional details.

Mission View Actions

> Select Missions for Display

1.   Select any number of missions from the list.

> **NOTE:** The selection mode is either individual (click on one line to highlight it) or multiple.

> If non-sequential line selections are needed, hold the Ctrl key while clicking on the additional lines. Missions may be individually deselected by holding the Ctrl key and clicking the selected mission line again.

-    Mission list lines can be sorted using any column header button. Clicking the button again will invert the sort order. Repeated clicking of the column button toggles the sort order.

-    With one or more mission line selected, additional operations are available. The Display On: Chart check box options can be selected and applied. Display operations using these controls are discussed below.

2.   With only one mission line selected, the View Missions button becomes available.

> Target / Mission Location Geographic Plot

To plot the targets or mission locations of all the selected missions:

1.   Select the Display On: Chart check box option and click APPLY.

2.   Select the Plot Selected Missions pop-up menu option

Symbols are plotted to represent the geographic location of targets and mission locations contained in the missions for which at least one section line is selected.

> View Mission Data

To view the tasking details for a selected mission:

1.   Select only one mission from the list.

2.   Select the Mission Data option from the pop-up menu.

3.   Alternatively, double click any plotted mission symbol.

The VIEW MISSION DATA window is presented. See the *View Mission Data* window section for additional details.

> Pair Tracks to Targets

This option plots pairing lines from selected tracks (platform or link) to targets with matching IFF Mode 2 or IFF Mode 3 codes.

For platform tracks, the PIF code is equivalent to IFF Mode 2 setting. Pairing lines will update (replot) automatically as track positions are updated.

1.   Select one or more tracks on the display.

2.   Choose the Pair Tracks to Targets pop-up option to plot the pairing lines.

3.   To clear pairing lines, unselect all tracks and repeat step 2.

> Pair Targets to Tracks

This option plots pairing lines from selected targets to tracks (platform or link) with matching IFF Mode 2 or IFF Mode 3 codes.

For platform tracks, the PIF code is equivalent to IFF Mode 2 setting. Pairing lines will update (replot) automatically as track positions are updated.

1.   Select one or more ATO targets on the display.

2.   Choose the Pair Targets to Tracks pop-up option to plot the pairing lines.

3.   To clear pairing lines, unselect all targets and repeat step 2.

> Automatic Pairing Lines

For automatic pairing of all plotted targets and mission locations with new tracks that are acquired by the track database:

1.   On the Track Association area of the AIR TASKING ORDERS window, select the Auto Pairing check box. This will initiate automatic pairing of tracks to targets at approximately five second intervals.

2.   To discontinue automatic pairing, click the check box again to deselect it.

> Update PIF Table

This option generates Mode2 and/or Mode3 nicknames based on the user selected missions.

1. From the Mission List, select the missions for which nicknames are to be created. Nicknames are generated for missions with codes listed under the Mode 2 and/or Mode 3 column headings.

2. Choose the "Update PIF Table" option from the pop-up menu.

3. From the PIF CONFIGURATION window, select the desired label to be used as the nickname. The operator can select from the following items: Mission Number, Callsign, or Aircraft Type.

4. Click OK. New nicknames can be viewed in the Track Nickname Table.

> Activate Geo-Filter

This option restricts the display of pairing lines. Lines will be displayed only between plotted targets and their associated tracks when the tracks are located within the geographic region defined by the currently selected geo-filter.

Geo-filter activation is a three-step process:

> Step 1. Geo-filter definition.

> Step 2. Geo-filter selection.

> Step 3. Geo-filter activation.

Step 2 is dependent on completion of Step 1, and Step 3 is dependent on completion of both Steps 1 and 2.

Step 1. Geo-filter definition:

Geo-filters must be defined using the Search Filter Table option of the TRACKS pull-down menu on the Chart menu bar. Geo-filters can be defined at any time—whether or not the ATO program is running. Geo-filters are named by the operator and stored on disk for future access by programs such as ATO. The operator can add, delete, and edit geo-filters at any time Chart is running.

To define a new geo-filter:

1. Select the TRACKS pull-down menu from the Chart menu bar.

2. Select the Search Filter Table option.

3. Click the ADD option in the SELECT SEARCH FILTER dialog pop-up window. This window provides a list of all currently defined geo-filters in the system.

4. In the GEO LOCATION area of the ADD SEARCH FILTER pop-up, select the type of geo-filter to be defined: BOX, CIRCLE, or POLYGON. (Note: The TRACK option is not applicable to ATO displays.)

5. Select EDIT and follow the intuitive steps to creating the desired filter.

6. In the SEARCH NAME: field at the top of the ADD SEARCH FILTER pop-up, enter a name by which the filter will be identified in future attempts to access the Search Filter Table.

    a. After entering the last character, press ENTER on the keyboard.

    b. Note: The name chosen should be as descriptive as possible in 15 characters (e.g., BOX_SW_OF_AFRCA for a box shaped filter located southwest of Africa).

7. Click OK to exit the ADD SEARCH FILTER window and return to the SELECT SEARCH FILTER pop-up. Notice the name and type of filter just entered appears at the bottom of the scrolled-list of defined geo-filters.

8. Click EXIT when finished adding, deleting, or editing filters.

Step 2. Geo-filter selection:

Geo-filters can be selected at any time while operating in the ATO LIST VIEW window or in the MISSION LIST VIEW window. Selection is made from an identical list to the one seen in Step 1.3 above. Confirmation of the selection is provided in the Selected Geo Filter: display located in the Track Association area. The current method for viewing a geo-filter on the Chart is to use the EDIT option of the Search Filter Table" function described in Step 1 above.

To select a geo-filter:

1. While in the ATO LIST VIEW or MISSION LIST VIEW window, click the right mouse button to display the pop-up menu.

2. Select the GEO Filter Select option to open the RECALL SEARCH FILTER dialog window. This window contains an identical list to the one seen in Step 1.3 above.

3. Click the desired geo-filter. Only one filter can be selected at a time.

4.   Click OK to accept the selected geo-filter, or CANCEL to close the RECALL SEARCH FILTER window. If the selection is accepted, the geo-filter name will appear in the Selected Geo Filter: display located in the Track Association area.

Step 3. Geo-filter activation:

The final step in using geo-filters on the ATO display is to activate the selected geo-filter. This is accomplished by clicking GEO FILTER check box in the Track Association area.

Clicking the check box again will deactivate the selected filter. A geo-filter can be activated at any time after selection is made, and once activated, will remain active until it is de-activated.

The effect of using a geo-filter will vary depending on the following factors:

• Pairing must be enabled, either via the Auto Pairing control in the Track Association area, or manually via Pair Tracks to Targets or Pair Targets to Tracks controls available on the MISSION LIST VIEW window pop-up and pull-down menus.

• Real-time air tracks registered with Tdbm will exhibit the expected behavior, with respect to display of pairing lines, as long as pairing is enabled and their location update reports are received at normal periodic rates by Tdbm. When auto-pairing is toggled off, the pairing line for any track within an active geo-filter will continue to be displayed until the filter is de-activated AND a location update report is received and processed by Tdbm.

• Non-real-time air tracks, including operator created tracks, that are stationary on the Chart, will require manual pairing control to see the effect of geo-filtering on their pairing line display.

Air Tasking Order Window Pull-down Menu Options

Many of the pop-up menu options described above are duplicated on the pull-down menus at the top of the AIR TASKING ORDER window frame. The following options are also available on the indicated pull-down menus:

File:

> PRINT
Prints the current AIR TASKING ORDERS window view list.

—If the ATO List view is active, that list is printed.

—If the Task Unit view is active, the section list is printed.
—If the Mission view is active, the list of missions is printed.

The PRINTER window opens to start the printing process.

> EXIT
Opens a confirmation window. Select YES to terminate the Air Tasking Order application, close all associated windows, and remove all associated symbols from the chart.

VIEW ATO Window

The VIEW ATO window (below) shows the message raw text and provides access to it by searching in one of two ways:

- air tasks and task units

- text strings

Select the message from the list in the AIR TASKING ORDERS window, choose the Display On: Raw Text and click on Apply to open the VIEW ATO window.

```
┌─────────────────────────────────────────────────────────────────────┐
│ ─                         VIEW ATO                              ▫ □   │
├─────────────────────────────────────────────────────────────────────┤
│    ┌──────────────────────NAVIGATION──────────────────────────┐      │
│    │ AIRTASK      TASKUNIT                          LINE        │     │
│    │ UNIT TASKING                                    35      ▲  │     │
│    │            11RS-1                                36      █  │     │
│    │            120FS                                108        │     │
│    │            157FS                                241        │     │
│    │            193ECG                               286        │     │
│    │            1SOW-3                                324        │     │
│    │            22BMBS                                354      ▼  │    │
│    │   │ PGUP │   │ PGDN │   │ 1UP │   │ 1DN │  │ HOME │ │ END │ │    │
│    └───────────────────────────────────────────────────────────┘     │
│    ┌────────────────────────VIEW───────────────────────────────┐     │
│    │ EXER/AJEX//                                                │     │
│    │ MSGID/ATOCONF/A5DOXC/-/DEC//                               │     │
│    │ NARR/                                                      │     │
│    │                  ATOCONF MESSAGE SETS                      │     │
│    │  MSNDAT / MSNNO / PKG / CALLSIGN / NUMACTYPE / AMSN / ALRT / SCL1 / │
│    │     SCL2 / SIF1 / SIF2                                     │     │
│    │  MSNLOC / TIME ON STATION / TIME OFF STATION / LOCATION NAME / │  │
│    │     ALTITUDE / REQUEST NUM / LOCATION                      │     │
│    │  TGTLOC / TIME ON TGT / TIME OFF TGT / TGT ID / TGT TYPE / DMPI / │
│    │     REQUEST  / COMMENTS                                    │     │
│    │  CONTROL / TYPE / CALLSIGN / PRIMARY FREQ / SECONDARY FREQ / │   │
│    │     REPORT POINT / COMMENTS                                │     │
│    │  FACINFO / CALLSIGN / PRIMARY FREQ / SECONDARY FREQ / REPORT POINT/ │
│    │     SUPPORT UNIT ID / COMMENTS                             │     │
│    └───────────────────────────────────────────────────────────┘     │
│    ┌───────────────────────SEARCH──────────────────────────────┐     │
│    │ SEARCH STRING ..................................  │ PREV │ │ NEXT │ │
│    └───────────────────────────────────────────────────────────┘     │
│                          │ EXIT │                                     │
└─────────────────────────────────────────────────────────────────────┘
```

VIEW ATO Window Actions

>   Scroll Controls

     Use these buttons to scroll through the raw data in the VIEW Box.

     •   PGUP or PGDN shows the next page of information in an upward or
          downward direction.

     •   1UP or 1DN—shows the next line of raw data in an upward or
          downward direction.

     •   HOME shows the first page of data.

     •   END shows the last page of data.

> Navigation

Provides rapid access to Task Units within the raw data.

1. Click on a task in the NAVIGATION Box.

    - That task unit displays as the first line in the VIEW Box.

2. If the information in the NAVIGATION Box does not match the data in the VIEW Box, use the BUILD NAVIGATION pop-up option to rebuild the air tasks and task units list.

> Search for Text String

Searches for a text string within the raw data.

1. Enter a string of text in the SEARCH STRING field.

2. Click PREV or NEXT to begin the search backward or forward from the current text.

    - If the text string is found, it appears as the first line in the VIEW Box.

3. Continue to click PREV or NEXT to search for additional occurrences of the string.

> EXIT
Closes the VIEW ATO window and opens the AIR TASKING ORDER window.

VIEW ATO Window Data

NAVAGATION Box

AIRTASK
Name of the task specified in the AIRTASK line of the ATO.

TASKUNIT
Name of the Task Units in the ATO.

LINE
Line number in the raw data where the Task Unit is located.

VIEW Box

This area of the window shows the raw data for the selected ATOCONF message.

View Mission Data for an Individual Mission

Data for an individual mission can be obtained in one of two ways:

- Select a mission from the list in the AIR TASKING ORDER window Mission view and select Mission Data on the pop-up menu (or double-click the list item).

- Double-click the mission symbol on the tactical display.

Mission data appears in the VIEW MISSION DATA window, as shown in the following figure. The initial VIEW MISSION DATA window shows the same data set, regardless of mission type. Additional Target, Mission or Reconnaissance mission data is provided in a subordinate window.

```
┌────────────────────────────────────────────────────────────────────────┐
│ ─                          View Mission Data                             │
├────────────────────────────────────────────────────┬───────────────────┤
│                    Mission Data                     │     Iff/Sif       │
│  Msn ID:    21305F        Msn Type:  ESC            │   ─               │
│  Pkg ID:    AB            Alert:     –              │   31125           │
│  Callsign:  EAGLE61       Pri Config: 4A120         │                   │
│  Aircraft:  2F15C         Sec Config: –             │                   │
│                  [ VIEW TGTLOC ]                    │                   │
└────────────────────────────────────────────────────┴───────────────────┘
```

Control

Callsign	Contact Point	Pri Freq	Sec Freq	Type	Comment
BRIGHAM11	AWACS	222.3	233.4	AWAC	
MINORIA APP	50 NM	233.5	332.5	CCT	

Facinfo

Callsign	Report Point	Pri Freq	Sec Freq	Unit ID	Comment

Elecmbt

Callsign	Alt	Location	Pri Freq	Sec Freq	Time On Stn	Time Off Stn	Pri

Refuel

Callsign	Alt	Arcp	Pri Freq	Sec Freq	Arct	Offload	Tnk ID
SHELL11	240.0		123.4	234.5	210910Z JAN 97	010	21704F
SHELL11	240.0		123.4	234.5	211141Z JAN 97	009	21704F

7Refuel

Callsign	Msn ID	Category	Arct	Offload	Tnk	Fuel	Comment

[Exit]   [Basic Intel]

The Basic Intel button on the VIEW MISSION DATA window will display the following information, if available. This information is obtained from IDB, if accessible, upon initial receipt of the ATOCONF message.

BE Number

Type

Threat

Images

Name

Country Code

Category

Order of Battle

Echelon

Primary Mission

The BASIC INTEL window provides access to additional information that may be displayed by clicking the Raw Intel button.

```
┌─────────────────────────────────────────────┐
│ ─              Basic Intel                 □ │
├─────────────────────────────────────────────┤
│  File   Support Data                         │
│ BE Number:                                   │
│ Type:                                        │
│ Threat:                                      │
│ Images:                                      │
│ Name:                                        │
│ Country Code:                                │
│ Category:                                    │
│ Order of Battle:                             │
│ Echelon:                                     │
│ Primary Mission:                             │
│                                              │
│  ┌──────────┐              ┌──────────────┐  │
│  │   Exit   │              │   Raw Intel  │  │
│  └──────────┘              └──────────────┘  │
└─────────────────────────────────────────────┘
```

```
┌───────────────────────────────┐
│         INFORMATION           │
├───────────────────────────────┤
│  i    Raw Intel not available.│
│                               │
│          ┌──────┐             │
│          │  OK  │             │
│          └──────┘             │
└───────────────────────────────┘
```
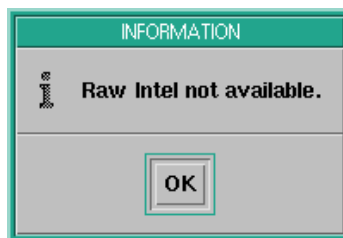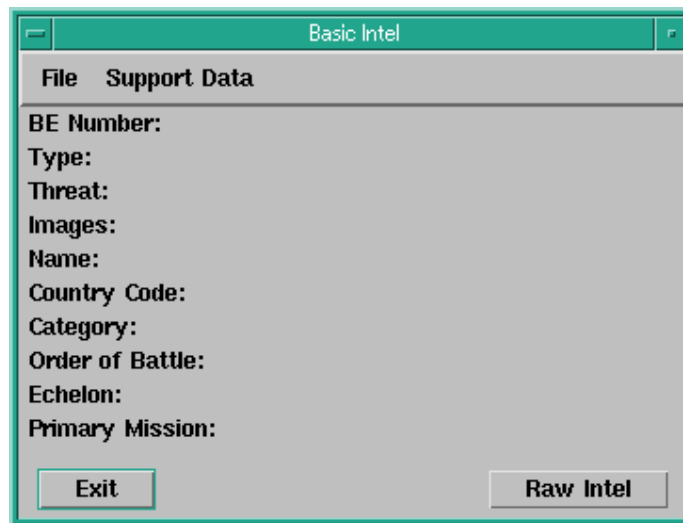
VIEW MISSION DATA Window Actions– Initial View

> CENTER MAP (Pop-up Menu)
Centers the tactical display around the selected mission location at a map width of 100 NM. This option can be used only for plottable missions (i.e., those missions that do not have a "N/A" in the Actv column of the AIR TASKING ORDER window Mission view).

> EXIT
  Closes the window.

> VIEW "XXX"

  Shows information about a specific mission type. The button in the MISSION
  DATA Box has a unique label for each type of mission:

>> Patrolling mission: VIEW MSNLOC

    Targeting mission: VIEW TGTLOC

    Reconnaissance mission: VIEW RECDATA

  To view information about a specific mission type:

  1.   Click the button to open a subordinate VIEW MISSION DATA window
        specific to the type of mission.

        -    These windows are view-only and cannot be edited.

  2.   Note: If the month is missing from the MSGID line in raw ATO messages,
        the current month appears in the VIEW MISSION DATA window.

        -    For each type of mission, the window actions are identical:

> PREV
  View data for the previous target or patrol area (if the mission specifies
  more than one target or patrol area).

> NEXT
  View the data for the next target or patrol area.

> OK
  Closes the window.

  Window fields are unique to each type of mission and are described in the
  following sections:

          Patrolling Missions—VIEW MSNLOC

          Targeting Missions—VIEW TGTLOC

          Reconnaissance Missions—VIEW RECDATA

  Combinations of information may be presented.

  For example, if the mission specifies patrol areas *and* reconnaissance data, the
  VIEW MISSION DATA window contains a MISSION DATA Box and a
  RECON DATA Box. Although the application can deal with combined mission

data, the current USMTF ATOCONF standard specifies that the TGTLOC, MSNLOC and RECDATA lines are mutually exclusive in a single MSNDAT segment.

VIEW MISSION DATA Window Fields– Initial View

The appearance of the initial VIEW MISSION DATA window is the same, regardless of mission type. It contains the following boxes of information:

- MISSION DATA
- CONTROL (controlling agency)
- FACINFO (Forward Air Controller)
- ELECMBT (electric combat aircraft)
- REFUEL (tanker aircraft)
- 7REFUEL (receiver aircraft)

MISSION DATA Box

MSN NUM

Mission number.

PKG ID

Identifier of the strike package that coordinates multiple missions. Each package has a designated strike leader that is indicated in the Unit Remarks of the ATO.

CALLSIGN

Callsign for the individual aircraft assigned for this mission.

AIRCRAFT

Number and type of aircraft required for this mission.

MSN TYPE

Code to represent the mission type.

ALERT

Alert status code for the mission. Specifies the necessary readiness level of the aircraft for this mission.

PRI CONFIG

Primary strike or weapons configuration for the mission. For example, a particular type of bomb load.

SEC CONFIG

Secondary configuration code for the mission aircraft.

IFF/SIF

Shows the IFF/SIF Mode 1, Mode 2 and/or Mode 3 codes assigned to the mission. The first digit is the Mode and the last two or four digits are the actual codes used by the mission aircraft.

CONTROL Box

CALLSIGN

Callsign of the controlling agency that the mission aircraft should contact.

CONTACT POINT

Location of the point at which the aircraft should contact the controlling agency.

PRI FREQ

Primary control frequency, in megahertz (MHZ).

SEC FREQ

Secondary control frequency, in MHZ.

TYPE

Code for the type of controlling agency that the mission aircraft should contact.

COMMENT

Comments concerning the controlling agency or check-in procedures.

FACINFO Box

CALLSIGN

Callsign of the Forward Air Controller (FAC) to be contacted.

REPORT POINT

Location of the point at which the aircraft should contact the FAC.

PRI FREQ

Primary FAC frequency, in MHZ.

SEC FREQ

Secondary FAC frequency, in MHZ.

UNIT ID

Ground unit being supported by the FAC.

COMMENT

Comments concerning the FAC or the check-in procedures.

ELECMBT Box

CALLSIGN

Callsign of the electric combat aircraft.

ALT

Assigned operating altitude for the mission, in hundreds of feet.

LOCATION

Location of the electric combat aircraft's mission.

PRI FREQ

Primary control frequency, in MHZ.

SEC FREQ

Secondary control frequency, in MHZ.

TIME ON STN

On-station time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is used in this column.)

TIME OFF STN

Off-station time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is used in this column.)

PRI

Priority of the mission.

REFUEL Box

CALLSIGN

Callsign of the tanker aircraft.

ALT

Assigned operating altitude for the mission, in hundreds of feet.

ARCP

Air Refueling Control Point.

PRI FREQ

Primary control frequency, in MHZ.

SEC FREQ

Secondary control frequency, in MHZ.

ARCT

Air Refueling Control Time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is used in this column.)

OFFLOAD

Total amount of fuel to be offloaded, in thousands of pounds. Note: This total applies to the flight if the mission involves more than one aircraft.

TNK ID

Mission number assigned to the tanker aircraft.

7REFUEL Box

CALLSIGN

Callsign of the receiver aircraft.

MSN ID

Mission number of the receiver aircraft.

CATEGORY

Number and type of the receiver aircraft.

ARCT

Air Refueling Control Time. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this column.)

OFFLOAD

Total amount of fuel to be offloaded/received in thousands of pounds. Note: This total applies to the flight if the mission involves more than one aircraft.

TNK

Tanker within the flight of tankers from which the receiver is to obtain fuel.

FUEL

Code for the type of fuel.

COMMENT

Additional information about the receivers.

Patrolling Missions– VIEW MSNLOC

If the mission involves patrolling a particular area, the VIEW MISSION DATA window contains a VIEW MSNLOC button.

Click VIEW MSNLOC to access patrolling information for the location as shown in the figure below.
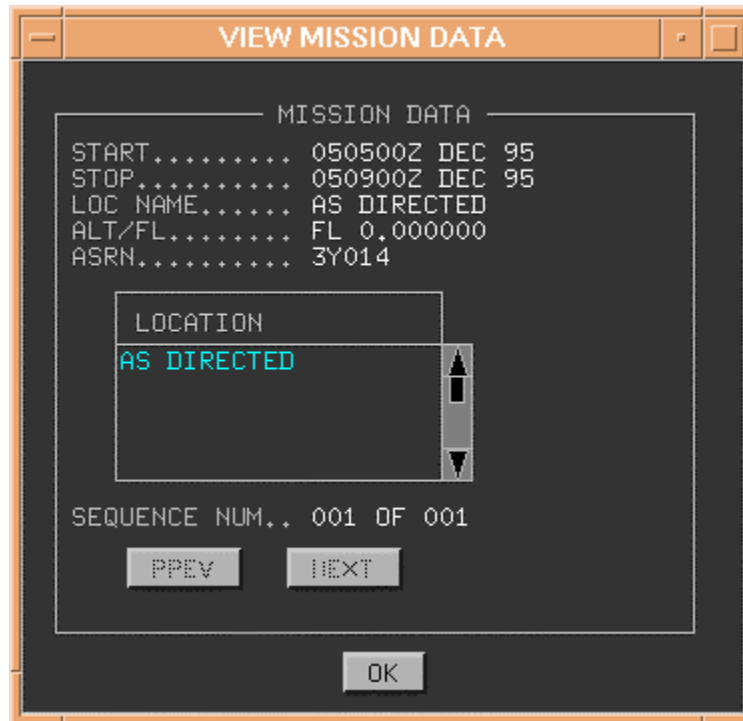
VIEW MISSION DATA Window Fields – MISSION DATA

START
Beginning DTG for the mission.

STOP
Ending DTG for the mission.

LOC NAME
Mission location name.

ALT/FL
Altitude of the mission (in hundreds of feet).

ASRN
Air Support Request Number to be satisfied by the mission.

LOCATION
Latitude / longitude position of each mission destination. Multiple positions may be listed in the scroll box.

SEQUENCE NUM

An individual mission may specify more than one patrol area. This field shows the number of the patrol area whose data is currently shown in the MISSION LOCATION Box, followed by the total number of patrol areas specified for the mission.

Targeting Missions– VIEW TGTLOC

If the mission specifies a particular target, the VIEW MISSION DATA window contains a VIEW TGTLOC button.

Click VIEW TGTLOC to access target information as shown here.

```
┌─────────────────────────────────────────┐
│ ▬         VIEW MISSION DATA        ▪   □ │
├─────────────────────────────────────────┤
│        ┌──── TARGET DATA ────┐           │
│        TIME ON TGT... 051800Z DEC 95     │
│        TIME OFF TGT.. 051805Z DEC 95     │
│        TARGET ID..... 0444-08404         │
│        TARGET TYPE... UARMOR             │
│        DMPI.......... 300130.0N 0473900.0E│
│        ASRN.......... 12V485             │
│        COMMENTS...... CHOKE POINT-ARMOR CONC│
│                                          │
│                                          │
│        SEQUENCE NUM.. 001 OF 001         │
│          ┌──────┐   ┌──────┐             │
│          │ PREV │   │ NEXT │             │
│          └──────┘   └──────┘             │
│                                          │
│                                          │
│               ┌──────┐                   │
│               │  OK  │                   │
│               └──────┘                   │
└─────────────────────────────────────────┘
```
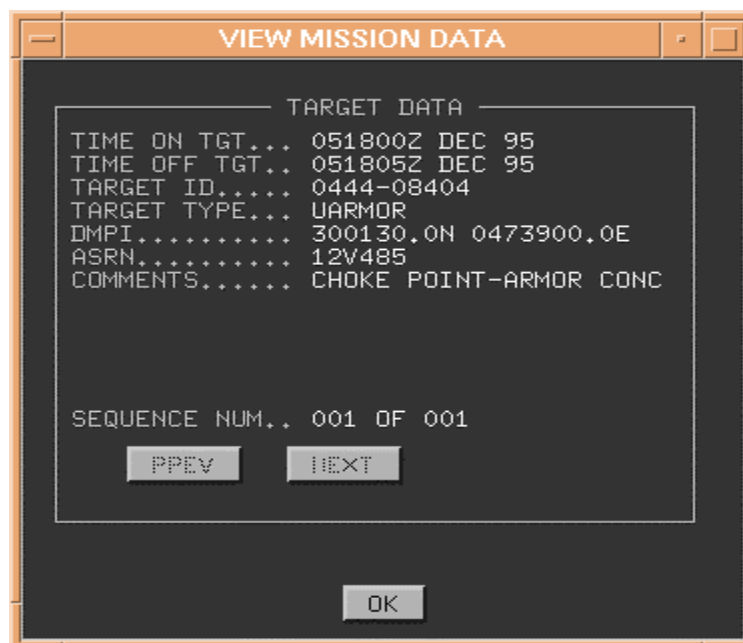
VIEW MISSION DATA Window Fields– TARGET DATA

TIME ON TGT
DTG when the aircraft should be over the target. This is also used as the planned time of first weapon impact for strike missions.

TIME OFF TGT
DTG when the aircraft should be finished with the operation and should be leaving the target area.

TARGET ID

Target identifier. Normally this field contains the target Basic Encyclopedia number (BE Number) used in the NIPS Query function to obtain the target location coordinates when DMPI data is not provided by the ATO.

TARGET TYPE

Specific target for this mission. For example, the TARGET ID field might identify a particular airfield, while the TARGET TYPE field could identify a particular aircraft or runway as the specific target.

DMPI

Latitude / longitude value for the Desired Mean Point of Impact (DMPI) for strike weapons.

ASRN

Air Support Request Number to be satisfied by the mission.

COMMENTS

Comments about the target.

SEQUENCE NUM

There may be multiple targets within a mission. This field shows the number of the current target followed by the total number of targets in the mission.

Reconnaissance Missions– VIEW RECDATA

If the mission is a reconnaissance (photographic or electronic intelligence gathering) mission, the VIEW MISSION DATA window contains a VIEW RECON button.

Click VIEW RECON to access reconnaissance information (figure below).

The MISSION DATA window for reconnaissance missions contains a RECON DATA Box and a TRACE PLOT Box.

RECON DATA Box—shows fields for the information that is to be gathered.

TRACE PLOT Box —when either PREV or NEXT is clicked in the RECON DATA box, the first recon area for the current recon assignment automatically appears in the TRACE PLOT box.

When the data for a particular recon area is shown in the TRACE PLOT box, this recon area is also plotted on the tactical display.

RECON DATA Box

REQUEST NUM

Request number to identify this assignment.

PRIORITY

Priority for the mission. If there is more than one mission in this task, this number determines the relative importance of each mission.

TIME ON TGT

Time on Target (TOT) DTG when the aircraft should be over the reconnaissance target. (Note: If the month is missing from the MSGID line in the raw ATO message, the current system month is in this field.)

LTIOV

Latest Time Information of Value (LTIOV) is the date and time after which intelligence provided by the mission would no longer be timely enough to be useful.

MISSION TYPE

General type of reconnaissance that is tasked.

COVERAGE TYPE

Specific type of coverage desired.

IMAGERY TYPE

Sensor for the mission tasking.

IMAGE QUALITY

Specific type of image required.

COVG EXTENT

Specific type of coverage required.

TARGET CODE

Code for the type of information desired to be reported.

SCALE

Scale of imagery, if a specific image scale is desired.

DELIVERY ADDR

Delivery address for the information. Multiple delivery addresses may be listed.

SEQUENCE NUM

The number of the current assignment, followed by the total number of assignments in the mission. There may be multiple recon assignments within a mission.

TRACE PLOT Box

AREA TYPE

Type of area for reconnaissance (corridor, point, etc.). The additional fields in the TRACE PLOT Box vary, depending on the area type. These fields describe the area in detail, giving appropriate latitude / longitude points and area sizes.

SEQUENCE NUM

Within the TRACE PLOT Box, shows the number of the current recon area, followed by the total number of recon areas in the assignment. There may be multiple recon areas.

ATO Processing

Use the PROCESSING**:** pop-up option to import or export ATO information between the ATO database within the system and either of the following:

• a DOS floppy disk

• a CTAPS server (import only)

When ATO data is imported:

• Information is viewable from the AIR TASKING ORDERS window.

• A NIPS query can be generated for ATOs that lack target latitude / longitude information.

• For each ATO message imported from CTAPS, the USER IN notation appears in the CHANNEL column of the INCOMING MESSAGE LOG window.

Select the PROCESSING: pop-up or pull-down menu option in the AIR TASKING ORDERS window to open the following AIR TASKING ORDER PROCESSING window.
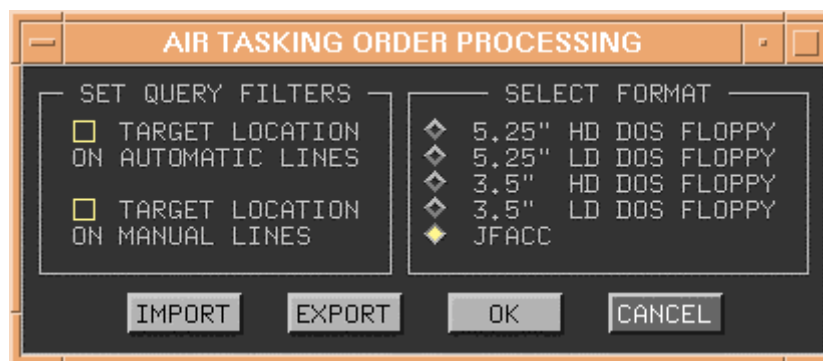
>   To import ATO Data from a CTAPS Server into the ATO Database:

1.   Click the JFACC diamond knob in the AIR TASKING ORDER PROCESSING window.

- The JFACC CONFIGURATION window, shown below, opens to configure the CTAPS Server Parameters. (Note: This step does not import the files.)

2.   Click OK to return to the AIR TASKING ORDER PROCESSING
      window, or click CANCEL to discard changed parameters.

To set the JFACC parameters and import the file:

1.   Although the host is usually the CTAPS server on your LAN, another host
      can be specified. Enter the host name, or click the list box preceding the
      HOSTNAME field to select from a list of all workstations on the network.

2.   A default directory path (/usr/tacc/data/cafms) is shown in the
      PATHNAME field. Use this path name or enter the directory path from
      which to import ATO data.

3.   Select SET DEFAULT from the window pop-up menu to set the entries
      shown in the HOSTNAME and PATHNAME fields as the JFACC
      CONFIGURATION window's default values.

4.   Click IMPORT. The ATO JFACC FILE IMPORT window (see figure
      below).

5.   Select a file to import and click OK, or click CANCEL to discard the
      request.

If no errors occur, a message indicates the ATO is being imported.

When the import process is finished, the ATO file can be viewed from the AIR
TASKING ORDERS window.
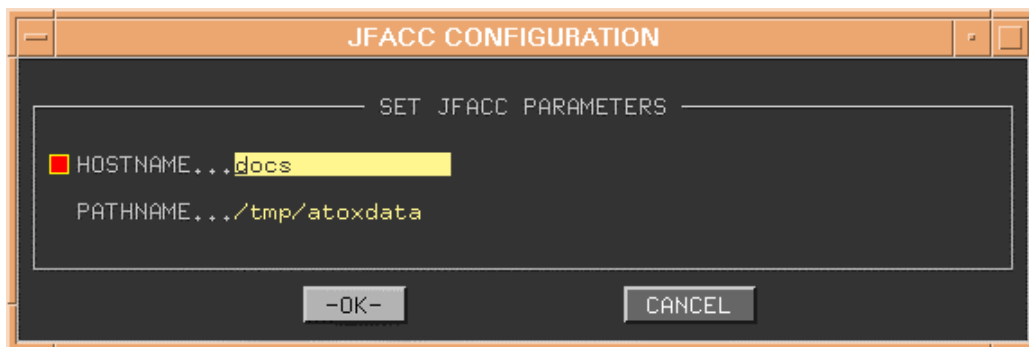
The JFACC CONFIGURATION window is used to configure the CTAPS
Server Parameter. The ATO JFACC FILE IMPORT window list files available
to import into the ATO database.

Airspace Control

The Airspace Control application permits display of airspace data received as part of the Remarks (RMKS) section of the ATO message, or possibly as a separate Airspace Control Order (ACO) message.

About ACO Messages:

- Current U. S. Air Force JFACC doctrine governs use of the ACO. Although the ACO is a USMTF formatted message and should be transmitted as a separate message, the USAF has consistently embedded the ACO in the SPINS section of the ATOCONF message. This doctrine may change in the future, so the system has been designed to receive ACO data as follows:

    - Extracted automatically from the ATOCONF, if it is embedded in SPINS.

- The ACO lists multiple airspace control means (ACMs) and their period of effectiveness for a theater of operations.

    - ACMs are defined points, lines, or areas which can serve different purposes in establishing the airspace to be used for joint air operations.

    - The ATOCONF can reference ACMs as a way of providing deconfliction between allied forces.

- When it is embedded in the ATOCONF, the ACO is directly associated with the air operations tasked in that ATOCONF and typically has the same period of effectiveness, but not guaranteed.

    - A separate PERIOD line is usually included as part of the embedded ACO message.

- Each ACM is individually defined in the ACO using USMTF data sets.

- Individual ACMs may have effective periods equal to or less than the period of the ACO / ATOCONF specified by the PERIOD line associated with each ACMID set.

- ACMs are decoded from the message. They are stored for display on the system chart and chart insets based on their name and effective period.

- Updates for a previously received ACM-name-and-period will be saved as a new version of that ACM for the given period.

- The ACM database is accessed using the ACO application's user interface, which controls display of data and raw text as well as the plotting of ACMs on the chart or chart inset. This user interface is described in detail in the following sections.

Airspace Control Window

The top level AIRSPACE CONTROL window (below), is accessed from the System Chart or any Chart Inset using the Support TDAs: Air Tasking: Airspace Control pull-down cascade menu option.

At anytime, one ACO application may be started from the System Chart and one ACO application can be started for each Chart inset that is open.

The AIRSPACE CONTROL window is active and available whenever the ACO application is running. This window may be minimized if desired without affecting any related ACM plot or raw text displays.

Airspace Control						
File Edit Display						Help
ACM Name	**Type**	**Start DTG**	**Stop DTG**	**Orig**	**Ver**	**Actv**
YUMA	CAS	010600ZJAN95	310559ZDEC95	SA1	01	No
USW6	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
USW5	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
USW4	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
USW3	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
USW2	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
USW1	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
SUZY	AAR	010600ZJAN95	310559ZDEC95	SA1	01	No
SEAVIEWAB	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
SAVANNAH	CAS	010600ZJAN95	310559ZDEC95	SA1	01	No
RJ	RJ	010600ZJAN95	310559ZDEC95	SA1	01	No
RICHMOND	CAS	010600ZJAN95	310559ZDEC95	SA1	01	No
NY	CAS	010600ZJAN95	310559ZDEC95	SA1	01	No
NORTHAB	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
MYRTL	CAS	010600ZJAN95	310559ZDEC95	SA1	01	No
MIAMI	OPAREA	010600ZJAN95	310559ZDEC95	SA1	01	No
JULIE	AAR	010600ZJAN95	310559ZDEC95	SA1	01	No

Display On: **Effective Period:**

☐ Chart   Start 030001ZJUL93

☐ Raw Text   Stop 032359ZJUL97   Select

Apply	Exit

Airspace Control Window Display Areas

Effective Period

This area of the AIRSPACE CONTROL window is used to select the start and stop times that are used to query the ACM database. The most recent version of the ACMs, which are effective for any amount of time during the entered start and stop time interval, will be presented in the ACM List.

On start-up of the ACO application, the default Effective Period is set to the current system date, with start time of 0001Z and stop time of 2359Z. The ACM database is queried on this period and the results are automatically displayed in the ACM List. For a different start and stop time to be used in a new query period, the date-time-group entry fields are edited as follows:

Start

Enter the earliest time desired in the format "DDHHMMZMONYY," for example:

- "310001ZMAY99"

As an alternative, use the @ convention to offset the Start time from current system time:

- Enter "@" to specify the current system time

- Enter "@+MMMM" to offset the start time MMMM minutes in the future

- Enter "@-MMMM" to offset the start time MMMM minutes in the past

The field background turns red if an incorrect format is used and input focus is moved from the entry field.

Stop

Enter the latest time in any of the formats described above. The field turns red if an incorrect format is used and input focus is moved from the entry field.

Select

After entering the start and stop times, click this button to execute the ACM database query.

When this button is clicked, the previous list is cleared and any plotted ACMs are removed from the chart display. Ensure that the ACM plot display is no longer needed or that the settings have been saved using Save Current Settings on the Display pull-down menu. To compare two different query periods, the operator should consider using a chart inset and running its ACO application.

ACM List

This scroll list contains the results of the ACM database query, plus any ACM versions which have been added using the Add to ACM List option on the VIEW ACM DATA window, Versions List pop-up menu. The ACMs presented in the ACM List are the most recent (highest numbered) version of each ACM for the specified effective period.

There may be multiple entries for the same ACM name, because the same ACM may have been effective for different periods during the query period selected in the Effective Period described above. For example, a query interval of 48 hours could return multiple instances of any ACM which had different effective periods which fell inside that interval.

The ACM List will display the results of the default query when the ACO application is first started from the Support TDAs menu.

>   ACM List Selection and Sort

Select one or more ACMs from the list. Selected lines are highlighted with a black background.

> **NOTE:**   The selection mode is either individual (click on one line to highlight it), or multiple (press the left mouse button and the keyboard Ctrl key, then drag the cursor across the desired ACM List lines).

> If a group of sequential lines is selected using the drag method, and then other non-sequential line selections are needed, hold the Ctrl key while clicking on the additional lines. Selected lines will be used to display on the chart or raw text as discussed below. Deselect ACMs individually by holding the Ctrl key down and clicking the selected ACM again.

If no ACM List lines are selected, the Apply button and the Open option on the File pull-down menu will not be active.

The initial list presented after a query is not sorted. The ACM List lines can be sorted using any column name button. Clicking the column name button again will invert the sort order. Repeated clicking of the column button toggles the sort order.

ACM Name

Name assigned to the ACM by the authority which issued the ACO - usually the JFACC.

Type

The ACM type is an abbreviation that describes the use of the ACM. A list of the ACM Types currently in use is included below in the ACM Types section.

Start DTG

ACM's effective period start time.

Stop DTG

ACM's effective period stop time.

Orig

Originator of the ACO; may be different from one day to the next depending on USAF doctrine. The originator may be the name of the JFACC or a code for the individual on the JFACC staff who released the ACO message.

Ver

Version of the listed ACM. ACMs included in the ACM List as the result of an Effective Period query are the most recent update versions for the entered start / stop interval.

Each ACM is stored separately in the ACM database based on its name and effective period. ACO Updates may be received which affect existing ACMs. These updates are stored as new versions of the ACM for that period.

A version number of 00 indicates that the ACM was stored from an ACO message received directly through JMCIS comms as a standalone ACO message (not current USAF doctrine). The version number can be incremented from 01 to 99 for local ACO modifications or ACOs received from ATOCONF SPINS. All versions are saved separately and can be viewed using the VIEW ACM DATA window Version scroll list.

Actv

If the ACM is currently plotted on the chart display, there will be a "Yes" in this column. A "No" indicates the ACM is not currently plotted. The operator should look at the raw text to determine whether there is a problem with the text format of the ACM points.

Display On:

This area is used to determine the destination display for selected ACMs in the ACM List. The operator can use the ACM List pop-up menu for the same operations, although this will bypass the Undo feature of the Edit menu. See the *ACM List Pop-up Menu* section below.

Chart and Raw Text may be selected at the same time if desired. If neither is selected, the Apply button will not have any effect.

Chart

Click this check box to enable plotting of the selected ACM List lines. Plotting will occur when the Apply button is clicked.

ACMs are plotted with the label selected under the Display pull-down menu. Each ACM is plotted in yellow, with the first defined point highlighted with a yellow dot (for a circle, this is its center). The ACM label and the dot are hotpoints to select the ACM from the chart display.

Raw Text

Click this check box to enable a display of the USMTF formatted message text for the selected ACM List lines. The ACM Raw Text window will be presented when the Apply button is clicked.

Text for each ACM is listed in sequence, beginning with the ACO header data sets saved from the ACO which authorized the selected ACM. Following the header data is the ACM data group, consisting of the USMTF data sets that describe the ACM. This data group may include amplifying comments about the ACM which the operator can use to better understand the purpose and structure of the airspace.

Airspace Control Window Buttons

> APPLY
When one or more ACM List lines is selected and one or both of the Display On: options are active, the Apply button causes the selected ACMs to be presented on the destination displays. If no ACM List lines are selected, the Apply button is not active.

> EXIT
Ends the current ACO application session. Click EXIT, then click OK on the verification dialog.

Airspace Control Window Pull-down Menu Items

File:

> OPEN
This menu option is active when one and only one ACM List line is selected. It is used to display the VIEW ACM DATA window for the selected ACM. The same Open action is provided by double clicking the left mouse button on one

ACM List line or on a plotted ACM's label or hotpoint. When another ACM is selected for Open using any of these methods, the VIEW ACM DATA window displays the data for the new ACM and the previous data is removed.

> PRINT
Prints the raw text for all selected ACMs.

> EXIT
Terminates the current ACO application session. Choose the Exit menu option, then click OK on the verification dialog.

Edit:

> UNDO
Returns the ACM list to the state in effect immediately after the last Apply was made. ACMs that were plotted (Actv column = Yes) are highlighted. All plotted ACMs are removed from the display. The Actv column is reset to "No."

Plotting actions initiated using the ACM List pop-up menu are not considered and will be removed from the display during the Undo operation.

If a new Effective Period query is performed, the Undo option will not have any effect until the Apply button is used. To save important ACO application settings during the current session, use the Display: Save Current Settings pull-down menu option.

> SELECT ALL
Select all of the lines in the ACM list.

> UNSELECT ALL

Deselect all of the lines in the ACM list.

Display:

> SAVE CURRENT SETTINGS
Save the state of all of the settings on the AIRSPACE CONTROL window. This includes the Effective Period Start and Stop times, the ACM List state and Display On: checkbox choices. These settings can be recalled using the Reset option. These saved settings are lost when the operator exits from the ACO application.

> RESET
  At anytime after the Save Current Settings option is used, the saved settings can
  be recalled using the Reset option. The Apply button must then be clicked to
  return the recalled settings to the desired display(s). If Save Current Settings has
  not been used during the current session, Reset will return the AIRSPACE
  CONTROL window to the default condition displayed when the ACO
  application was initiated.

Airspace Control Window - ACM List Pop-up Menu Items

| Select All |
| Unselect All |
| Plot Selected ACM(s) |
| Deactivate Plotted ACM(s) |
| Generate OVLY2 |
| Delete Selected ACM(s) |
| Raw Text ... |
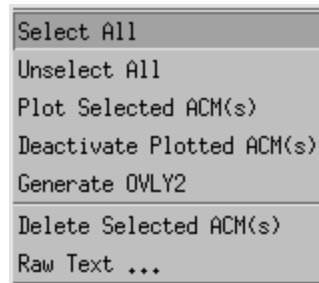
A pop-up menu (as depicted below) is available when the cursor is inside the
ACM List area by pressing the right mouse button:

> SELECT ALL
  All ACM List lines are selected.

> UNSELECT ALL
  All ACM List lines are unselected.

> PLOT SELECTED ACMS
  Using this option, the selected ACMs are plotted on the chart display. This
  bypasses the Apply button, which means that the ACMs selected and plotted this
  way will not be remembered when the Undo option is selected. At least one
  ACM List line must be selected for this option to be available.

> DEACTIVATE PLOTTED ACMS

  Remove selected ACMs from the chart display. The removed ACMs may be
  plotted again by using the Plot Selected ACMs option or by using the Display
  On: Chart checkbox and the Apply button. At least one ACM List line must be
  selected for this option to be available.

> GENERATE OVLY2:

Use this option to create an overlay containing all of the selected ACMs. Selecting this option opens the OVERLAY NAME dialog window, shown in the following figure:
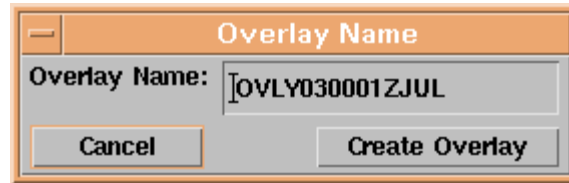
1.   Enter the desired name or accept the default name in the Overlay Name field. An overlay with a duplicate name will overwrite an existing overlay with the same name.

2.   Click CREATE OVERLAY.

3.   Use the Cancel button to close the window without creating an overlay.

4.   Open the Overlays application from the Support TDAs menu on the chart frame. The ACM overlay is added to the list of overlays that can be managed and transmitted to other units using this application.

Each ACM is translated into a geographical overlay object based on the points of the ACM, and an accompanying text object containing the ACM label. A maximum of 50 ACMs can be submitted at one time because the overlay application can group a maximum of 100 objects into an OVLY2 overlay and each ACM creates two objects.

> DELETE SELECTED ACMS:

At least one ACM List line must be selected for this option to be available.

CAUTION: This operation will cause the data files that are represented by the selected ACM List lines to be permanently deleted from the database.

Use this option carefully, since the ACM List normally shows the most recent version of each ACM. Use the VIEW ACM DATA window Versions pop-up menu Delete option to delete outdated versions of individual ACMs.
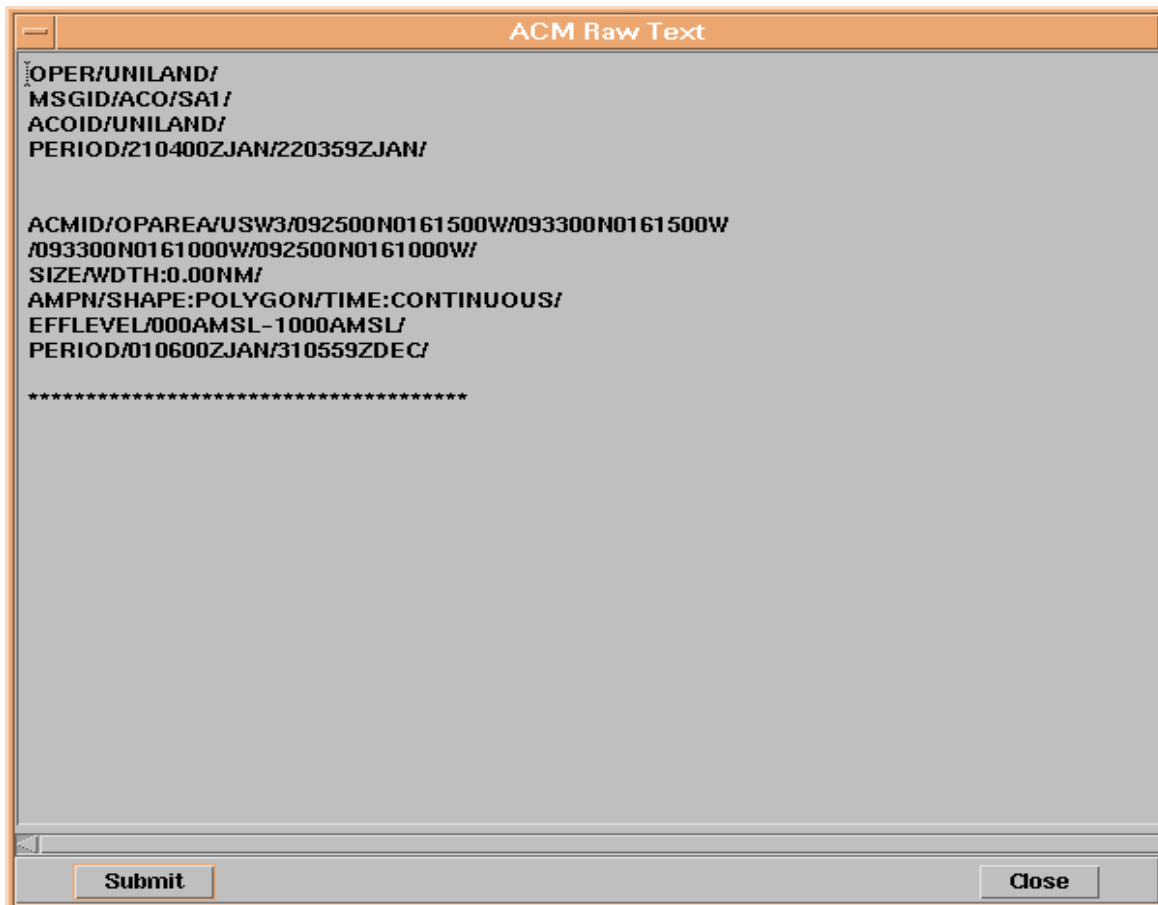
>   RAW TEXT:

Use this option to open the ACM Raw Text window. The selected ACMs are displayed in the same order as the current ACM List. At least one ACM List line must be selected for this option to be available.

ACM Raw Text Window

The ACM RAW TEXT window is accessed as described in the AIRSPACE CONTROL window section above. This window displays the raw text for each ACM selected when the Apply button is clicked with Display On: Raw Text checkbox selected, or when the pop-up menu Raw Text is selected.

The ACMs are displayed in the same order as the current ACM List. Text for each ACM is listed in sequence, beginning with the ACO header data sets saved from the ACO which authorized the selected ACM. Following the header data is the ACM data group consisting of the USMTF data sets which describe the ACM. This data group may include amplifying comments about the ACM which the operator can use to better understand the purpose and structure of the airspace.

```
┌─────────────────────────────────────────────────────────────┐
│ ─                    ACM Raw Text                            │
├─────────────────────────────────────────────────────────────┤
│ OPER/UNILAND/                                                │
│ MSGID/ACO/SA1/                                               │
│ ACOID/UNILAND/                                               │
│ PERIOD/210400ZJAN/220359ZJAN/                                │
│                                                              │
│                                                              │
│ ACMID/OPAREA/USW3/092500N0161500W/093300N0161500W           │
│ /093300N0161000W/092500N0161000W/                           │
│ SIZE/WDTH:0.00NM/                                            │
│ AMPN/SHAPE:POLYGON/TIME:CONTINUOUS/                          │
│ EFFLEVEL/000AMSL–1000AMSL/                                   │
│ PERIOD/010600ZJAN/310559ZDEC/                                │
│                                                              │
│                                                              │
│ ****************************************                     │
│                                                              │
│                                                              │
│                                                              │
├─────────────────────────────────────────────────────────────┤
│  ┌──────────┐                              ┌──────────┐      │
│  │  Submit  │                              │  Close   │      │
│  └──────────┘                              └──────────┘      │
└─────────────────────────────────────────────────────────────┘
```

Editing ACM Raw Text

The ACM RAW TEXT window, accessed from the AIRSPACE CONTROL
window, allows simple editing of any of the listed ACMs. Each ACM that is
listed on the ACM RAW TEXT window includes the header data needed by the
decoder to interpret the individual ACM text groups as a "mini-ACO."

The edit capability permits text changes, which may be necessary based on verbal
communications, to update individual ACMs which are in use during the ATO
execution day. Only those ACMs that are different in some way from the most
recent version will be added to the database as a new version.

The ACM RAW TEXT window edit feature does not provide error checking, so
the operator should be familiar with the ACO message format before editing
ACMs. The decoder will ignore message data that is not in compliance with the
ACO format limitations.

> To Add Edited ACMs to the ACM Database:

   1.   Select the ACMs that need to be updated, then activate the ACM RAW
        TEXT window.

   2.   After making changes to the displayed ACMs, click SUBMIT to send the
        ACMs to the decoder.

   3.   The newly added ACMs are listed in the View ACM Data Version List,
        from which they can be added to the main AIRSPACE CONTROL
        window for display.

   4.   As an alternative, refresh the Airspace Control list by clicking on Select,
        which will retrieve the latest ACM inputs including those submitted from
        the RAW TEXT window.

ACM Raw Text Window Buttons

> SUBMIT
  Sends the edited ACM text to the ACO decoder for addition to the ACM database.

> CLOSE
  Closes the ACM RAW TEXT window.

View ACM Data Window

The VIEW ACM DATA window, below, can be accessed via:

• the File: Open pull-down menu option;

• by double clicking the left mouse button on the ACM list line

• by double clicking the left mouse button on the plotted object's label or
  hotpoint.

View ACM Data Window Display Areas

ACM Data

This area shows definition data that is stored in the database for the selected ACM.

ACM Name
The name provided in the ACO message ACMID data set.

Type
ACM type specified in the ACO message ACMID data set. A list of ACM Types currently in use is included below in the ACM Types section.

Size
Width or radius of the ACM object as specified in the ACO message SIZE data set.

Shape

The shape may be provided in the ACO message AMPN set or it may be determined by the number of points specified and the value of the Size dimension. The following shapes are currently supported:

- Point

- Orbit

- Line

- Corridor

- Circle

- Polygon

Effective Level

The effective level is a set of alphanumeric characters describing the floor and ceiling of the ACM.

First group—the airspace floor, which is followed by a "-" (dash symbol

Second group—defines the airspace ceiling (i.e., 2000AGL-FL280)

Levels may be defined as Feet Above Ground Level (AGL) or Feet Above Mean Sea Level (AMSL).

Above 18,000 feet AMSL, the levels are usually defined as Flight Levels. These levels are shown in hundreds of feet. FL280 is the flight level corresponding to 28,000 feet. Flight levels are based on a standard pressure datum of 29.92 inches of mercury.

Period Start

Start time specified in the ACO message PERIOD data set.

Period Stop

Stop time specified in the ACO message PERIOD data set.

If the ACO message uses a modified stop time in the PERIOD set, such as NLT or UFN, the system will set the ACM stop time to maximum system time (a very distant future time). The operator should look at the raw message text to determine the actual ACM effective period.

Associated Message Data

This area shows other data that is relevant to the selected ACM.

Time of Entry

System date and time when the ACM version was entered into the database.

Entry Source

The path used to enter the ACM version into the database, either COMMS or LOCAL. The available paths for ACO data are:

- Received via JMCIS comms directly to the decoder (COMMS)

- Derived from the ATOCONF RMKS section (LOCAL)

- ACOs that have been edited by the operator and submitted to the decoder using the SUBMIT button on the ACM RAW TEXT window are also indicated as LOCAL.

The source is of interest because it is not possible to retransmit ACO data derived from sources other than COMMS. If it is necessary to transmit ACO data that has been entered or edited locally, the operator may use the JMCIS Overlay capability after creating an overlay using the Generate OVLY2 pop-up menu option on the AIRSPACE CONTROL window.

ACO Valid Area

Area of Validity specified in the ACO message ACOID data set. This is usually the theater of operations covered by the ACO.

EXER/OPER

Exercise or Operation name specified in the ACO message EXER or OPER data set.

Points List

This scroll list shows the geographical points which define the ACM.

The system is limited to storage of 64 points maximum. If there are more than 64 points in the ACM data, the Points List background is changed to yellow. The operator should look at the raw text to determine the additional points of the ACM. An overlay can be created to display up to 256 points if required.

Pt

Sequence number of the listed point, in the order derived from the ACO message ACMID data set.

Latitude

The latitude and hemisphere of the point.

Longitude

The longitude and hemisphere of the point.

Versions List

Multiple effective periods of the same ACM can exist in the database. For each effective period, any updates are stored as a new version. The latest version of the ACM for a queried effective period is the version provided in the ACM List.

All versions of an ACM currently in the database are listed in this area of the VIEW ACM DATA window. Outdated versions of an ACM can be displayed using the pop-up menu that is available from this scroll list area.

Lines in the list can be selected for operations using the pop-up menu. Selected lines are highlighted with a contrasting color. Only one line may be selected at a time.

The list can be sorted using the column name buttons.

Start DTG
Period Start date time group for the ACM version.

Stop DTG
Period Stop date time group for the ACM version.

Version
The version number for the indicated effective period.
A version with a source of COMMS will be shown with a version number of 00. Versions entered from LOCAL sources can have version numbers from 01 to 99.

View ACM Data Window Pop-up Menu

A pop-up menu, shown in the following, is available when the cursor is inside the Versions List area by pressing the right mouse button.

```
Open ..
View Raw Text ..
Add to ACM List
Delete
```
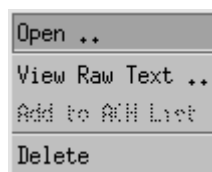
> OPEN
Displays the data for the selected version in the VIEW ACM DATA window.
The data for the previous ACM version is overwritten.

> VIEW RAW TEXT

An ACM RAW TEXT window is presented using this option, showing the ACO message header and the ACM data group for the selected ACM version.

If the ACM RAW TEXT window is already open, the text of the selected
version overwrites the text of the previous version. This raw text display is
limited to a single ACM. See the *ACM Raw Text* section below for more details.

> ADD TO ACM LIST
This option adds the selected ACM version to the bottom of the ACM List on
the AIRSPACE CONTROL window, if it is not already included in that list. The
added version can then be displayed in the same manner as all of the ACMs
brought up by the Effective Period query.

> DELETE
Using this option, the operator can permanently remove the selected ACM
version from the database.

> **CAUTION:**   This operation will cause the data file that is
> represented by the selected Version List line to be permanently deleted
> from the database.

View ACM Raw Text Window Buttons

> VIEW RAW TEXT
The ACM RAW TEXT window is opened when this button is clicked, showing
the ACO message header and the ACM data group for the ACM version which
is displayed in the VIEW ACM DATA window. If the ACM RAW TEXT
window is already open, the text of the selected version overwrites the text of
the previous version. This raw text display is limited to a single ACM. See the
ACM Raw Text section below for more details.

> CLOSE
Close the VIEW ACM DATA window, as well as the ACM RAW TEXT
window if it was opened from this window.

ACM Raw Text Window

An ACM RAW TEXT window (shown below), is also accessible from THE
VIEW ACM DATA window. Use the View Raw Text button, or select an entry
in the Version List and choose the View Raw Data pop-up menu option.

This window is independent of the ACM RAW TEXT window which is
accessed from the AIRSPACE CONTROL window. It displays only one ACM
at a time.

The raw text displayed can be different from the version shown in the VIEW
ACM DATA window if:

- the Version List pop-up menu is used to display raw text for another
  version of the ACM;

- another ACM is selected for the Open operation from the ACM List

- another ACM is selected by double clicking it on the chart display.

ACM Raw Text

```
OPER/UNILAND/
MSGID/ACO/SA1/
ACOID/UNILAND/
PERIOD/210400ZJAN/220359ZJAN/


ACMID/OPAREA/SEAVIEWAB/102300N0142100W/
SIZE/WDTH:0.00NM/
AMPN/SHAPE:POINT/TIME:CONTINUOUS/
EFFLEVEL/050AMSL-FL500/
PERIOD/010600ZJAN/310559ZDEC/
```

Submit   Close
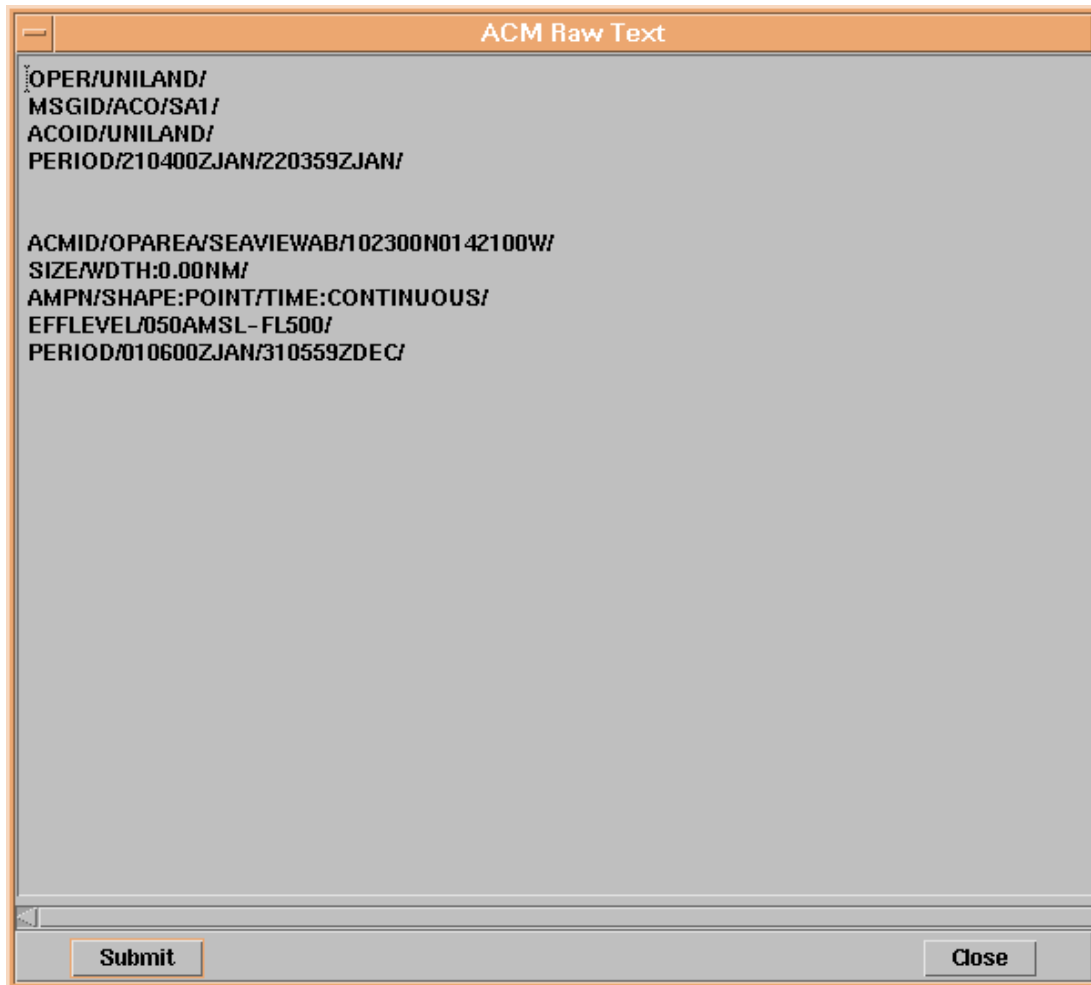
Editing ACM Raw Text

The ACM RAW TEXT window, accessed from the VIEW ACM DATA
window, allows simple editing of the single listed ACM. The ACM that is
shown on the ACM RAW TEXT window includes the header data needed by the
decoder to interpret the ACM text group as a "mini-ACO".

The edit capability permits text changes, which may be necessary based on verbal communications, to update individual ACMs which are in use during the ATO execution day. The ACM will be added to the database as a new version if any text data has been edited prior to submitting it to the decoder.

The ACM RAW TEXT window edit feature does not provide error checking, so the operator should be familiar with the ACO message format before editing ACMs. The decoder will ignore message data which is not in compliance with the ACO format limitations.

> To Add an Edited ACM to the ACM Database:

1. Activate the ACM Raw Text from the VIEW ACM DATA window.

2. After making the desired changes to the displayed ACM, click SUBMIT to send the ACM to the decoder.

3. The newly added ACM will be listed in the ACM Version List, from which it can be added to the AIRSPACE CONTROL window for display.

4. As an alternative, refresh the Airspace Control list by clicking on Select, which will retrieve the latest ACM inputs including those submitted from the RAW TEXT window.

ACM Raw Text Window Buttons

> SUBMIT
Send the edited ACM text to the ACO decoder for addition to the ACM database.

> CLOSE
Close the ACM RAW TEXT window.

ACM Types

The following types of Airspace are currently supported by CTAPS for ACO messages.

(1)	AAR	AERIAL AIR REFUELING
(2)	ABC	AIRBORNE COMMAND AND CONTROL CENTER
(3)	AR	AIR ROUTE (CORRIDOR)
(4)	ACA	AIRSPACE COORDINATION AREA
(5)	ACRL	ATLANTIC COORDINATION ROUTE - LOW

(6) ACRH   ATLANTIC COORDINATION ROUTE - HIGH

(7) ADIZ   AIR DEFENSE IDENTIFICATION ZONE

(8) AEW   AIRBORNE EARLY WARNING

(9) AOA   AMPHIBIOUS OPERATIONS AREA

(10)   AOR   AREA OF RESPONSIBILITY

(11)   ARR   AIR REFUELING ROUTE

(12)   ARWY   FAA/ICAO AIRWAY

(13)   BDZ   BASE DEFENSE ZONE

(14)   BULL   BULLSEYE POINT

(15)   BZ   BUFFER ZONE

(16)   CAP   COMBAT AIR PATROL

(17)   CAS   CAS AIRBORNE ALERT ORBIT

(18)   CFL   COORDINATED FIRE LINE

(19)   CP   CONTACT POINT

(20)   DBSL   DEEP BATTLE SYNCRONIZATION LINE

(21)   DZ   DROP ZONE

(22)   EC   ELECTRONIC COMBAT OPERATIONS ZONE

(23)   FARP   FORWARD ARMING AND REFUELING POINT

(24)   FEBA   FORWARD EDGE OF THE BATTLE AREA

(25)   FEZ   FIGHTER ENGAGEMENT ZONE

(26)   FFA   FREE FIRE AREA

(27)   FIR   FLIGHT INFORMATION REGION

(28)   FLOT   FORWARD LINE OF OWN TROOPS

(29)   FOB   FORWARD OPERATING BASE

(30)   FOL   FORWARD OPERATING LOCATION

(31)   FSCL   FIRE SUPPORT COORDINATION LINE

(32)   GB   GROUND BOUNDARIES

(33)   HIDACZ   HIGH-DENSITY AIRSPACE CONTROL ZONE

(34)   IFFON   IFF SWITCH-ON LINE

(35)   IFFOFF   IFF SWITCH-OFF LINE

(36)   IP   INITIAL POINT

(37)   JEZ   JOINT ENGAGEMENT ZONE

(38)   KILLBX   KILL BOX

(39)   LLRT   LOW ALTITUDE TRANSIT ROUTE

(40)   LZ   LANDING ZONE

(41)   MEZ   MISSILE ENGAGEMENT ZONE

(42)   MOA   MILITARY OPERATION AREA

(43)   MRR   MINIMUM RISK ROUTE

(44)	NFA	NO FIRE AREA
(45)	NGF	NAVAL GUNFIRE AREA
(46)	NOFLY	NO FLY AREA
(47)	PZ	PICKUP ZONE
(48)	RANGE	TACTICAL RANGE
(49)	RBFA	REAR BOUNDARY OF THE FORWARD AREA
(50)	RFA	RESTRICTED FIRE AREA
(51)	RFL	RESTRICTED FIRE LINE
(52)	ROA	RESTRICTED OPERATIONS AREA
(53)	ROZ	RESTRICTED OPERATING ZONE
(54)	SAAFR	STANDARD ARMY AVIATION FLIGHT ROUTE
(55)	SC	SPECIAL CORRIDOR
(56)	SCTR	SECTOR
(57)	SEMA	SPECIAL ELECTRONIC MISSION AIRCRAFT
(58)	SRADEZ	SHORT-RANGE AIR DEFENSE ENGAGEMENT ZONE
(59)	SOF	SPECIAL FORCES OPERATIONS AREA
(60)	TC	TRANSIT CORRIDOR
(61)	TCA	TERMINAL CONTROL AREA
(62)	TL	TRAVERSE LEVEL
(63)	TRNG	TRAINING AREA
(64)	UAV	UNMANNED AERIAL VEHICLE OPERATIONS AREA
(65)	WFZ	WEAPONS FREE ZONE

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D Menu Options

DATUM TRANSLATION

Provide Defense Mapping Agency (DMA) routines to translate position information between local geodetic datums and coordinate systems (WGS 84).

DDN (DEFENSE DATA NETWORK) HOST TABLE

Create and maintain a list of host names and their relationship to your site.

DDN NET PING

Determine whether or not you are able to communicate with selected host names.

DEAD RECKON (TRACK OVERRIDE)

Control Dead Reckoning (DR) for the selected track—and all other tracks that are selected on the tactical display.

DECLUTTER (TRACK LABELS)

Declutter symbol labels for easier viewing.

DECODER STATUS

Display messages that are sent to the decoder.

DELETE (TRACK)

Delete selected tracks from the database.

DIAGNOSTICS (MONITOR)

Diagnostic monitor command for TAC-3/TAC-4.

DR TRAILERS (TRACK OVERRIDE)

Control the plotting of DR Trailers for the selected track—and all other tracks that are selected on the tactical display.

DUPLICATES

Compare tracks and ambiguities with common attributes.

Notes

Datum Translation

Menu Location: TDAs

See Also: COORDINATE CONVERSION, Status Bar (Procedures)

Use the DATUM TRANSLATION option to translate position information between Geodetic Datums and World Geodetic System (WGS) 84 and vice versa.

Coordinates may be input in any of three standard formats: geographic position (GP), Universal Transverse Mercator (UTM), and Military Grid Reference System (.). Coordinate conversion is done, if possible, on both the input point and the transformed point, so that each coordinate is represented in all three formats.

DATUM TRANSLATION is similar to the COORDINATE CONVERSIONoption, but is able to call on almost 200 geodetic datums to translate information. Essentially, DATUM TRANSLATION plots more than the "earth round sphere" measurements used by COORDINATE CONVERSION.

To access this window: TDAs menu **:** DATUM TRANSLATION option.

```
┌───────────────────────────────────────────────────────────────┐
│ ─           Datum Translation                     • □          │
├───────────────────────────────────────────────────────────────┤
│                  Geodetic Datum Selection                      │
│  ┌──────────────────────────────────────────────────────┐     │
│  │ Datum            Ellipsoid          Country/Area       │     │
│  │ ┌──────────────────────────────────────────────────┐ △│     │
│  │ Adindan          Clarke 1880        Mali             │  │     │
│  │ Adindan          Clarke 1880        Mean for Ethopia │  │     │
│  │ Adindan          Clarke 1880        Senegal          │  │     │
│  │ Adindan          Clarke 1880        Sudan            │  │     │
│  │ Afgooye          Krassovsky         Somalia          │  │     │
│  │ Ain el Abd 1970  International       Bahrain         │  │     │
│  │ Ain el Abd 1970  International       Saudi Arabia    │ ▽│     │
│  └──────────────────────────────────────────────────────┘     │
│  ◁ [_____]                                              ▷     │
│                                                               │
│                WGS   1984      WGS   1972      Error          │
│     Latitude  [00:00:00.0N ]  [          ]    +/-3m           │
│    Longitude  [000:00:000E ]  [          ]    +/-3m           │
│                                                               │
│     UTM Grid                                                  │
│       Zone       [  +31  ]       [  -30  ]                    │
│ Northing (meters) [0000000 ]     [9999995 ]                  │
│  Easting (meters) [0166021 ]     [0833961 ]                  │
│                                                               │
│     MGRS  [31N AA-66021-00000] [30M ZE-33961-99996]          │
│                                                               │
├───────────────────────────────────────────────────────────────┤
│     [  APPLY  ]                    [  EXIT  ]                  │
└───────────────────────────────────────────────────────────────┘
```

The DATUM TRANSLATION window contains a sorted Geodetic Datum Selection scroll list, the WGS 84 coordinates, and the local datum coordinates fields.

The Geodetic Datums scroll list is used to select the local geodetic datum to be transformed to and from WGS 84. It contains fields for DATUM, ELLIPSOID, and COUNTRY/AREA. Click a column header to sort the scroll list by topic.

Within the local datum coordinates fields, the following actions are possible: (Note: All coordinate fields can be edited.)

1.   Enter a point using one of the following methods:

      a.   Enter a value in one of the fields and click APPLY (or press the RETURN key on the keyboard) to automatically show the corresponding coordinate values in the other fields.

b. Click a point on the tactical display to automatically enter that value in the WGS 84 latitude/longitude fields. The selected Geodetic Datum values are automatically shown.

2. Click another point, or enter a new value in one of the fields and all fields change to reflect the value of the new point.

3. Click APPLY to apply the selected GEODETIC DATUM SELECTION.

4. Click EXIT to leave the DATUM TRANSLATION window.

Notes

DDN (Defense Data Network) Host Table
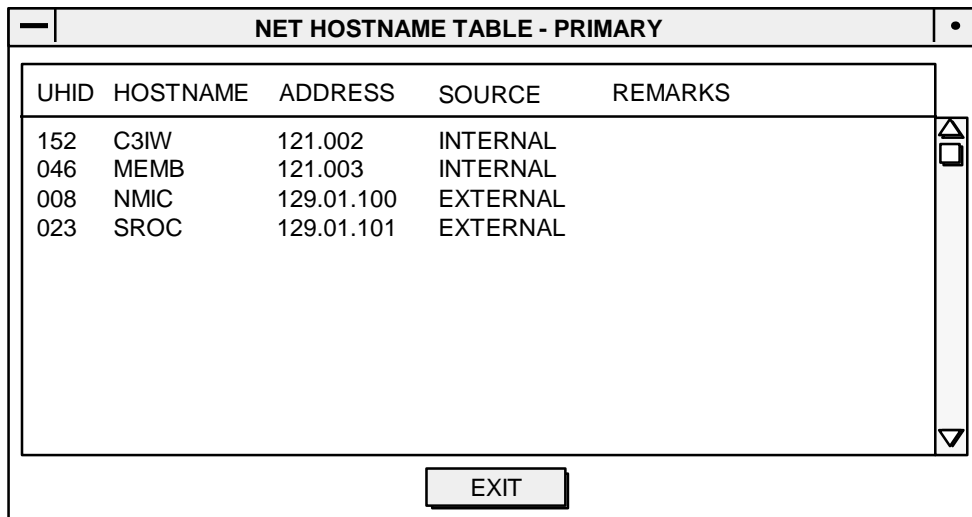
Menu Location: COMMS

See Also: AUTO-FORWARD TABLE, CHANNEL STATUS, DDN NET PING

The DDN HOST TABLE option is used to view a list of host names and their relationship to the site.

- Host names are used to communicate between the different sites when using a network-type communications channel.

- The DDN HOST TABLE option cannot be edited by end-users. The System Administrator has edit capability. The *System Administrator's Guide* contains more details about maintaining host tables.

To access this window: COMMS menu **:** DDN HOST TABLE option.

```
┌──┬────────────────────────────────────────────────────────┬───┐
│ ─│            NET HOSTNAME TABLE - PRIMARY                 │ • │
├──┴────────────────────────────────────────────────────────┴───┤
│  ┌──────────────────────────────────────────────────────┐     │
│  │ UHID  HOSTNAME  ADDRESS      SOURCE      REMARKS       │     │
│  │                                                        │ ◿◺  │
│  │ 152   C3IW      121.002      INTERNAL                  │ ▢  │
│  │ 046   MEMB      121.003      INTERNAL                  │     │
│  │ 008   NMIC      129.01.100   EXTERNAL                  │     │
│  │ 023   SROC      129.01.101   EXTERNAL                  │     │
│  │                                                        │     │
│  │                                                        │     │
│  │                                                        │     │
│  │                                                        │     │
│  │                                                        │ ▽  │
│  └──────────────────────────────────────────────────────┘     │
│                     ┌─────────┐                                │
│                     │  EXIT   │                                │
│                     └─────────┘                                │
└────────────────────────────────────────────────────────────────┘
```

The NET HOSTNAME TABLE window lists all host names for either the primary or alternate host table. The title bar shows either PRIMARY or ALTERNATE to identify which list is being viewed.

> PRINT (pop-up option)—prints a copy of the host table information.

  1. Select PRINT ILOG LISTING to open the JMCIS PRINTER window and identify where the information will be printed.

  2. See *PRINT* in Appendix A for details about the print process.

> EXIT—this option and close the window.

NET HOSTNAME TABLE Window Fields

UHID
Unique host name ID—a three-character code that *uniquely* identifies the host.

HOSTNAME
The *full* name of the host; each host must be unique.

ADDRESS
Numerical address of the host machine.

SOURCE
INTERNAL—host name is internal to a site.

EXTERNAL—host name is external to a site.

REMARKS
Remarks about the host name.

DDN Net Ping

Menu Location: COMMS

See Also: CHANNEL STATUS, DDN HOST TABLE, SYSTEM SERVICES

The DDN (Defense Data Network) NET PING option is used to verify communication status with selected host names.

To access this window: COMMS menu **:** DDN NET PING option.

```
 _____
| ▬|        DDN STATUS         | •  |
|_____|
|  _____  |
| | HOSTNAME                   |  |△||
| |                            |  |□||
| | C3IW                       |  |  ||
| | MEMB                       |  |  ||
| | NMIC                       |  |  ||
| | SROC                       |  |  ||
| |                            |  |  ||
| |                            |  |  ||
| |                            |  |  ||
| |                            |  |  ||
| |                            |  |▽||
| |_____|__|  |
|   _____   _____   _____     |
|  | PING | | TIMEOUT | | EXIT |    |
|  |_____| |_____| |_____|    |
|_____|
```
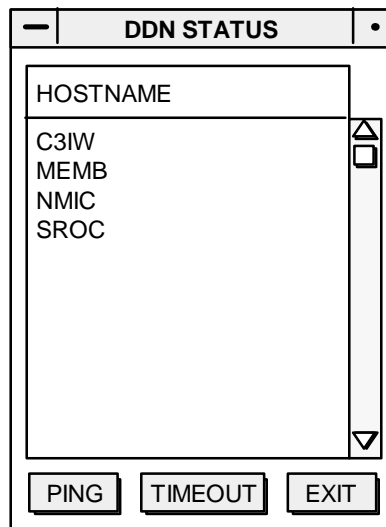
The DDN STATUS window lists all responding host names in the system.

>   How to use the DDN STATUS window to check the communications status between your site and others:

1.   Click TIMEOUT to open the TIMEOUT window and set a value to discontinue pinging if there is no answer within this time period.

   a.   Enter the number of seconds to wait until discontinuing the ping.

   b.   Click OK to accept the entry, or click CANCEL to discard it.

2.   Select one or more HOSTNAMEs from the scroll list.

3.   Click PING. The following HOST STATUS window opens and shows the communications status between your site and the selected host names.

```
 ┌──────────────────────────────────┐
 │ ▬  │      HOST STATUS       │  •  │
 ├────┴────────────────────────┴─────┤
 │ ┌────────────────────────────┐ │  │
 │ │ HOSTNAME       STATUS      │ │  │
 │ ├────────────────────────────┤ │  │
 │ │ MEMB           DOWN        │△│  │
 │ │                            │□│  │
 │ │                            │ │  │
 │ │                            │ │  │
 │ │                            │ │  │
 │ │                            │▽│  │
 │ └────────────────────────────┘    │
 │ ┌─────────┐ ┌────────┐ ┌──────┐  │
 │ │ CONNECT │ │TIMEOUT │ │ EXIT │  │
 │ └─────────┘ └────────┘ └──────┘  │
 └──────────────────────────────────┘
```
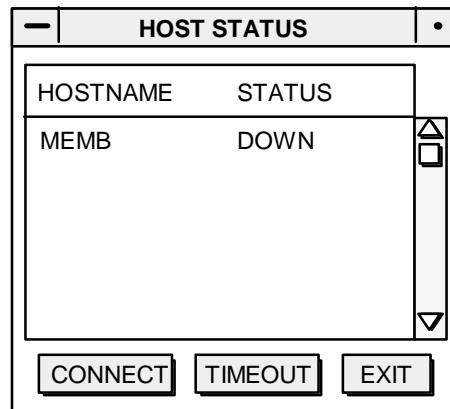
> How to use the HOST STATUS window:

1. To change the value to discontinue pinging if there is no answer, click TIMEOUT to open the TIMEOUT window.

   a. Enter the number of seconds to wait until discontinuing the ping.

   b. Click OK to accept the entry, or click CANCEL to discard it.

2. Select one or more HOSTNAMEs from the scroll list.

3. Click CONNECT to "ping" the selected hosts for status.

4. Click EXIT to close the window and return to the DDN STATUS window.

DDN STATUS and HOST STATUS Window Fields

HOSTNAME
Name of the host.

STATUS (HOST STATUS window only)
UP—communicate with the selected host name.

DOWN—communication lines are not open for the selected host name.

TIMEOUT—communications could not be established for the selected host name within the time period set with the TIMEOUT button.

Dead Reckon (Track Override)

Menu Location: Track Right Pop-up

See Also: AOU, ATTRIBUTE TOGGLES, DECLUTTER (track labels), DR TRAILERS (track override), SLASH TIMES, SPECIAL CONTROLS, SPEED LEADER (track override), STORED PLOT CONTROLS, TRACK CONTROL, TRACKCONTROL STORAGE

Use the DEAD RECKON option to control Dead Reckoning (DR) for the selected track—and all other tracks that are selected on the tactical display when this option is used. This option overrides the default DR setting entered with the ATTRIBUTE TOGGLESoption.

- When viewing this option on the menu, either ON or OFF is listed after the DEAD RECKON menu name.

- When this option is selected, the current DEAD RECKON setting changes to the opposite setting for the selected track.

- If any other tracks are selected on the display when this option is used, their DEAD RECKON setting either changes or stays the same to match the new setting for the selected track.

Notes

Declutter (Track Labels)

Menu Location: PLOT CONTROLS

See Also: SYMBOL LABELS,SYMBOLS ON/OFF/DOTS

Use the DECLUTTER option to redraw the track labels and minimize the amount of label overlap.

The DECLUTTER option contains a cascading menu with three options:

- DYNAMIC DECLUTTER

- DECLUTTER FREEZE

- NO DECLUTTER

Dynamic Declutter

Use the DYNAMIC DECLUTTER option to (1) declutter the tactical display, and (2) periodically declutter the tactical display as tracks are updated. The screen declutters every 2 minutes, or whenever there are 100 changes on the display—whichever comes first.

> Choosing DYNAMIC DECLUTTER produces these results:

- In areas where track labels overlap, the labels are separated so they can be read.

- Solid lines appear, extending from the labels to their track symbols.

- In particularly cluttered areas of the display, some labels may be moved some distance from the track position, or may not appear at all.

- Track labels are moved or omitted in order of threat priority, lowest to highest—HOS, FRD, AFD, NEU, SUS, UNK, OTHER, NI. The lowest priority (NI) would be moved or omitted first.

The following figure shows a tactical display before (left view) and after (right view) using the DYNAMIC DECLUTTER option.
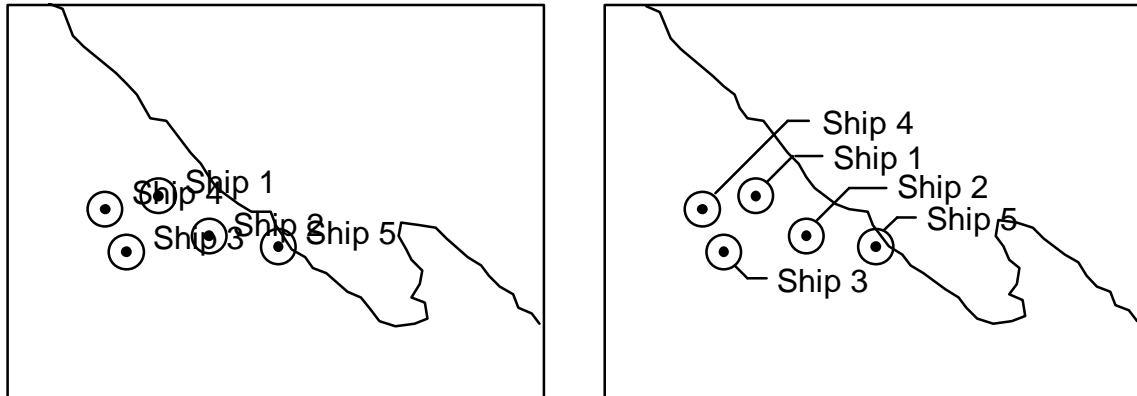
Declutter Freeze

Use the DECLUTTER FREEZE option to declutter the tactical display and freeze the tracks in their current positions.

> Choosing DECLUTTER FREEZE produces these results:

    • The appearance of the tactical display is the same as described in *Dynamic Declutter*.

    • The main menu title bar reads "Freeze Mode."

    • No new track updates take effect on the tactical display and no new tracks will appear.

    • The display remains frozen until the DYNAMIC DECLUTTER or NO DECLUTTER option is chosen from the DECLUTTER cascading menu.

No Declutter

Use the NO DECLUTTER option from the cascading menu to turn off the declutter process.

> Choosing NO DECLUTTER produces this result:

    • Track labels that were moved by the DYNAMIC DECLUTTER or DECLUTTER FREEZE option are moved back to their original positions to the upper-right of the track symbol, regardless of whether they overlap other track labels.

The example below shows a tactical display before (left view) and after (right view) using the NO DECLUTTER option.
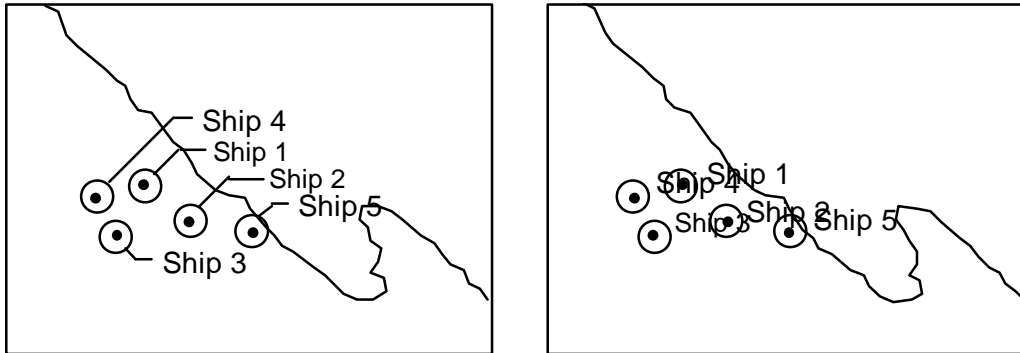
Notes

Decoder Status

Menu Location: COMMS

See Also: CHANNEL STATUS, COMMUNICATIONS, FILE STATUS, INCOMING MSG LOG [F8], INPUT GEO FILTERS, INPUT MSG FILTERS, LOG MGR INCOMING, SYSTEM SERVICES, SYSTEM STATUS

Use the DECODER STATUS option to verify messages are being decoded and to view errors that occur due to faulty messages.

- The window shows one-line descriptions for messages that are sent to the decoder, such as "OTH-GOLD REPORT" or "RAINFORM REPORT."

- The message also shows errors in the data entering the decoder, such as "INPUT REPORT DISCARDED - POS/LOB ERROR."

- These messages cannot be edited.

To access this window: COMMS menu **:** DECODER STATUS option.

```
┌─────────────────────────────────────────────────────────────┐
│ ▬ |          DECODER STATUS                         | •       │
├─────────────────────────────────────────────────────────────┤
│                    STATUS AND ERRORS                          │
│   ┌──────────────────────────────────────────────────────┐   │
│   │                                                      │   │
│   │                                                      │   │
│   │                                                      │   │
│   │                                                      │   │
│   │                                                      │   │
│   │                                                      │   │
│   ├──────────────────────────────────────────────────────┤   │
│   │ TDBM MASTER STARTING                                 │   │
│   │ FINDER STARTUP-UNIX:0.0                              │   │
│   └──────────────────────────────────────────────────────┘   │
│          ┌──────────────┐        ┌──────────────┐            │
│          │    PAUSE      │        │    EXIT      │            │
│          └──────────────┘        └──────────────┘            │
└─────────────────────────────────────────────────────────────┘
```
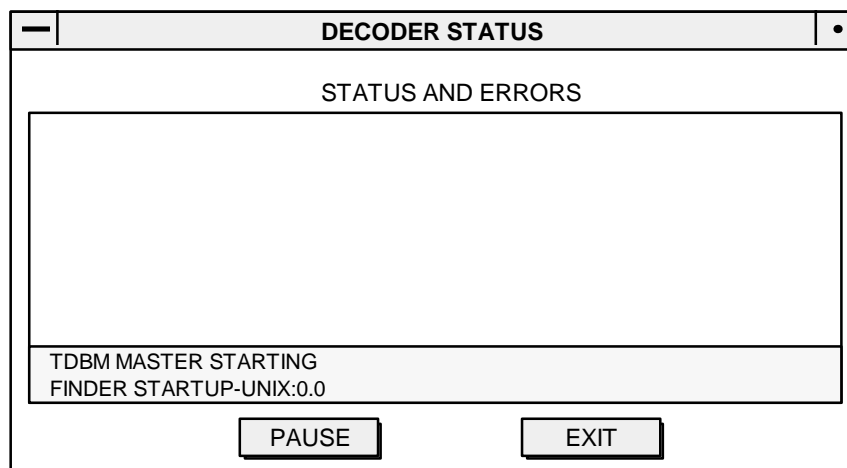
When opened, descriptions for the last 1000 messages received by the system automatically scroll through this window. The most recently received message description is listed at the bottom of the window as older messages scroll up and out of view.

> How to use the DECODER STATUS window:

1.   Click PAUSE to temporarily stop new messages from being displayed.

- Use the scroll bar to scroll back and view older messages that are no longer shown in the visible portion of the window.

- When PAUSE is clicked, the name of the button changes to CONTINUE.

2. Click CONTINUE to view new messages again.

3. Repeat steps 1–2 to view messages.

4. Click EXIT to exit from the DECODER STATUS option.

Delete (Track)

Menu Location: TRACKS

See Also: Associate Tracks (Procedures), EDIT (track), PRINT (track), SEARCH, TRACK GROUPS, Track Selection (Procedures), TRACK SUMMARIES

Use this option to delete tracks from the system. When a track is deleted, its track symbol and label are removed from the tactical display and its data is removed from the track database.

The window that opens when this option is chosen depends on the number of tracks selected.

To access this window (with multiple tracks selected): TRACKS menu **:** DELETE option.

```
┌──────────────────────────────────────────────────────────────────────┐
│ ─            SELECT TRACKS FOR DELETE                           •  □   │
├──────────────────────────────────────────────────────────────────────┤
│ TRACK NAME  LTN   STN  FTN  PARENT  PIF  FLAG CAT THRT TYPE HULL SOURCE SENSOR BRG RNG ALRT TLATE │
│ . . . . . . . . . .  T4437  ....  ....  .....       ..  UNK UNK ALRT  .....  RG  NAV  022 5028 ... 000:22 │
│ ABRAMS      T4007  ....  ....  .....  5020 UF  AIR FRI  ...  .....  RG  NTDS 102 2665 ... 000:21 │
│ CHARLESTON  T4010  ....  ....  .....  5025 UU  AIR UNK  F-14 .....  RG  NTDS 105 2871 HIT 000:15 │
│                                                                              │
│            ┌─ OK ─┐              ┌ EXIT ┐                             │
└──────────────────────────────────────────────────────────────────────┘
```

Note: For a description of the fields in this window, see *TRACK SUMMARY—TRACK* option.

SELECT TRACKS FOR DELETE Window Actions

> Delete—one or more tracks:

1. Select one or more tracks from the tactical display.

2. Select DELETE from the TRACKS menu.

   - If one track is selected, the CONFIRM DELETES window opens immediately.

   - If no tracks are selected, the DATABASE SEARCH window appears. (Described in the SEARCH option.)

- If multiple tracks are selected, the SELECT TRACKS FOR DELETE window appears. Choose the tracks to delete and click OK.

3.   The CONFIRM DELETES window provides the following options:

- Click YES to confirm each delete individually.

- Click NO to delete all selected tracks at once.

- Click CANCEL to cancel the delete process.

4.   If YES is chosen (confirm each delete individually), the selected track's EDIT window appears, with a DELETE button in place of the OK button.

- NEXT (button available if multiple tracks were selected)—view the next track in the scroll list without deleting the track whose data is currently displayed in the window.

- PREV—view the previous track.

- DELETE—delete the track whose data is displayed in the window.

- EXIT—close the EDIT window without deleting the track whose data is displayed in the window.

5.   If the track selected for deletion is a parent track (associated with other tracks), a BREAK ASSOCIATIONS window appears.

a.   Click YES to break the associations and delete *only* the selected parent track.

b.   Click NO to delete the selected parent track and *all* associated tracks.

6.   Click EXIT to exit from the DELETE option.

>   PRINT ALL (pop-up option)—prints a list of all the tracks in the window.

>   PRINT SELECTED (pop-up option)—prints a list of all the operator-selected tracks in the window.

1.   Select one or more tracks.

2.   Choose PRINT SELECTED to open the JMCIS PRINTER window and identify where the information will be printed.

3.   See *PRINT* in Appendix A for details about the print process.

> SELECT ALL (pop-up option)—selects all tracks in the list.

> UNSELECT ALL (pop-up option)—deselects all tracks in the list.

Notes

Diagnostics (Monitor)

Menu Location: MISC

See Also: RESTART CHART, SYSTEM STATUS, TOP 25 PROCESSES

The DIAGNOSTICS (MONITOR) option is one of three troubleshooting programs designed to help system users determine the cause of software problems.

This option works on TAC-3 and TAC-4 terminals only. If the option is selected on any other terminals, a warning window appears.

To access this window: MISC menu **:** DIAGNOSTICS (MONITOR) option.

```
┌─────────────────────────────────────────────────────────────────────┐
│ ▬                              monitor                          •  ▢  │
├─────────────────────────────────────────────────────────────────────┤
│                                                                       │
│   Fri Oct 7 15:46:50  1994              9000/750  HP/UX monitor – HELP MENU │
│                                                                       │
│                                                                       │
│     Monitor mode keys:                  Other monitor commands:       │
│     - - - - - - - - - - - -             - - - - - - - - - - - - -     │
│                                                                       │
│     C - configure values / Drivers      ? - Display help for current screen │
│     G - Global system status            ! - Invoke a shell           │
│     I - I/O status                      B - Backward to previous screen (or -) │
│     K - Diskless status                 D - Dump screen to hardcopy   │
│     L - LAN status                      F - Forward to next screen (' ' or +) │
│     M - Message protocol status         H - Halt monitor updates      │
│     N - Network status                  P - Select a process to analyze │
│     O - Message opcode status           Q - Quit monitor             │
│     R - Remote uptime                   R - Resume from HALTED state   │
│     S - Single process information      U - Update configuration variables │
│     T - Tasks running                   X - Return to main menu        │
│     V - Virtual memory status           ^L - Redraw screen            │
│                                                                       │
│                                                                       │
│   For a list of command line options, invoke as: 'monitor help'       │
│   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -     │
│                                                                       │
│   Hard copy device (for /usr/bin/lp)                                 │
│   Update interval = 1 seconds              $Revision: 70.5 $          │
│   N screen protocol revision ID = 1.0      Built on: A.08.07L         │
│                                                                       │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

The MONITOR window contains two lists—Monitor Mode Keys and Other Monitor Commands.

> To use the MONITOR window:

1. Enter a character from either list. The MONITOR window shows the requested information.

2. After viewing the information, press RETURN to redisplay the lists.

3. Repeat steps 1 and 2 to view various categories of information.

4. Enter Q (Quit monitor) to close the window.

DR Trailers (Track Override)

Menu Location: Track Right Pop-up

See Also: AOU, ATTRIBUTE TOGGLES, DEAD RECKON (track override), DECLUTTER (track labels), SPECIAL CONTROLS, SPEED LEADER (track override), STORED PLOT CONTROLS

Use the DR TRAILERS option to control the plotting of DR Trailers for the selected track—and all other tracks that are selected on the tactical display when this option is used. This option overrides the default DR Trailer setting entered with the ATTRIBUTE TOGGLES option.

- When viewing this option on the menu, either ON or OFF is listed after the DR TRAILERS menu name.

- When this option is selected, the current DR Trailer setting changes to the opposite setting for the selected track.

- If any other tracks are selected on the display when this option is used, their DR Trailer setting either changes or stays the same to match the new setting for the selected track.

Notes

Duplicates

Menu Location: TRACKS

See Also: COMPARE [Alt + M], DELETE (track), TRACK SUMMARIES

Use the DUPLICATES option to search for multiple tracks with some identifying attribute in common. This option assists in identifying duplicate tracks that should be merged into one track.

- Some attributes such as RTN, CLASS, TYPE, HULL NO, TRADEMARK, ELNOT, EMITTER, FLAG, and ALERT will naturally have duplicates.

- Others—LTN, FTN, STN, SCONUM, CALLSIGN—should not have duplicate data.

- Tracks with duplicate attributes can be passed through the COMPAREoption to quickly merge those that represent the same object.

To access this window: TRACKS menu **:** DUPLICATES option.
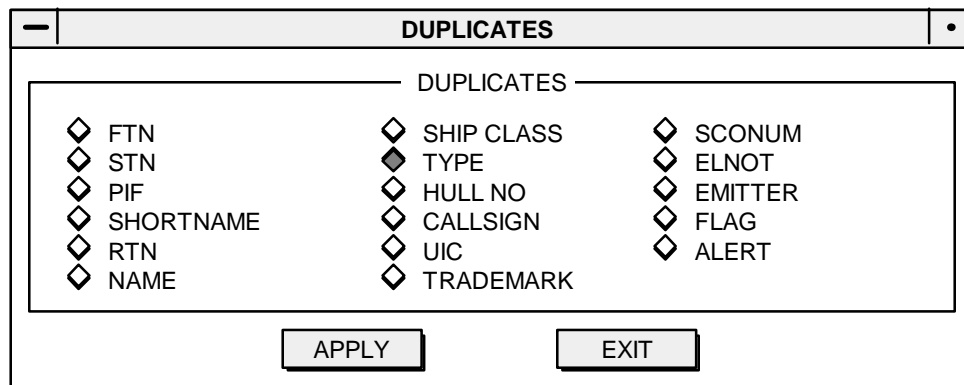
> To use the DUPLICATES option:

1. Click a radio button to select an attribute. (Only one radio button can be selected at a time.)

2. Click APPLY to search the database for tracks that have duplicate values for the selected attribute.

3. A window lists the values that have duplicates and the number of tracks for each value.

4. To view tracks with duplicate values, select one of the entries from the list and click OK.

5. The SELECT MASTER TRACK FOR MERGE window appears. All tracks with the selected value appear in the scrolling list.

6. Use COMPARE to merge duplicate tracks.

    a. Choose a track to use as the master track and click OK to view the COMPARE window.

    b. Refer to the COMPARE option for information on comparing tracks.

7. Repeat steps 1–6 to search for duplicates of each attribute.

8. Click EXIT to close the DUPLICATES window and exit the option.

FOTC Parameters

Menu Location: FOTC/BCST

See Also: AUTO-FORWARD TABLEBROADCASTS, CHANNEL STATUS, COMMUNICATIONS, DECODER STATUS, FOTC SITREP, FOTC SITREP SUMMARY, INCOMING MSG LOG [F8], INPUT GEO FILTERS, INPUT MSG FILTERS, LOG MGR INCOMING, LOG MGR OUTGOING, MESSAGE ALERTS, MSG HEADERS, OUTGOING MSG LOG [F9], SYSTEM STATUS, TRACK TABLES (Source XREF Table)

Use the FOTC PARAMETERS option to set the parameters for FOTC (Force Over-the-Horizon Track Coordinator) mode.

About FOTC:

- When a group of ships is in FOTC mode, one ship is designated as the FOTC Coordinator ship; other ships are designated as FOTC Participants.

- FOTC mode is used to synchronize track information for all ships in a group.

- All incoming contact reports are sent to the FOTC Coordinator ship where they are processed and broadcast to all FOTC participants.

- The FOTC Broadcast runs only in Coordinator or Participant mode. It *never* runs in Non-Participant mode.

- While in one of the two FOTC modes, use the BROADCASTS option to start and stop the FOTC Broadcast at any time.

- In Coordinator or Participant mode, make sure the correct Receive Guard List in the ON-143 (V) 6 has been entered for the mode of operation.

To access this window: FOTC/BCST menu **:** FOTC PARAMETERS option.

```
┌──────────────────────────────────────────────────────────────────┐
│ ▬                    EDIT BGDBM CONFIGURATION                 • □  │
├──────────────────────────────────────────────────────────────────┤
│  ┌── BGDBM CONFIGURATION ──┐    ┌──── BROADCAST HEADER ────┐        │
│  ┌──── BGDBM MODE ────┐                                             │
│  │                    │        │   FM:                      │      │
│  │  ○ COORDINATOR (CT)│                                            │
│  │  ○ PARTICIPANT (PT)│        │   TO:                      │      │
│  │  ○ NON-PARTICIPANT │        │   TO:                      │      │
│  │  ○ UID CORRELATION │        │   TO:                      │      │
│  └────────────────────┘        │   TO:                      │      │
│  ┌── COMMANDS AND SIDS ──┐     │   TO:                      │      │
│  LOCAL CMD:                    └────────────────────────────┘      │
│  FOTC CT  CMD:                                                     │
│  FOTC CT SID:                  ┌ CLASSIFICATION ┐ ┌ PRECEDENCE ┐    │
│  FOTC BCST SID:                │                │ │             │   │
│  ┌──── BCST STARTUP ────┐      │ ○ UNCLASSIFIED │ │ ○ ROUTINE   │   │
│  │  ○ SEND NEW ONLY     │      │ ○ CONFIDENTIAL │ │ ○ PRIORITY  │   │
│  │  ○ SEND ALL UNSENT   │      │ ○ SECRET       │ │ ○ IMMEDIATE │   │
│  │  ○ AUTOSTART         │      │ ○ SECRET NF    │ │ ○ FLASH     │   │
│  │  5   CYCLE RATE      │      │ ○ TOP SECRET   │ │             │   │
│  └──────────────────────┘      └────────────────┘ └─────────────┘  │
│  ┌──────────── DESTINATION CHANNELS ────────────┐                  │
│  │  SOURCE     CHANNEL     SID1 SID2 SID3 SID4 SID5 ▲ │             │
│  │                                              □ │                 │
│  │                                              ▽ │                 │
│  └──────────────────────────────────────────────┘                  │
│        [ FILTER ]      [ OK ]      [ CANCEL ]                       │
└──────────────────────────────────────────────────────────────────┘
┌──────────────────┐
│ HELP ··           │
│                   │
│ OUTPUT FILTER     │
│ UPDATE TOGGLES    │
│ GUARD SETTINGS    │
│                   │
│ RECALL HEADER ··  │
│                   │
│ OK                │
│ CANCEL            │   Pop-up Menu Options:
└──────────────────┘
```

EDIT BGDBM CONFIGURATION Window Action

> BGDBM Configuration—set the parameters

1. Click the applicable radio button in the BGDBM MODE Box to designate your ship as the COORDINATOR, a PARTICIPANT, or a NON-PARTICIPANT.

   - Ashore sites, click the UID Correlation radio button to put the correlator in UID mode.

- UID correlation is described in *EDIT BGDBM CONFIGURATION Window Fields*.

2. If in NON-PARTICIPANT or UID CORRELATION mode:

    - *Do not* enter information into the remaining fields in the BGDBM CONFIGURATION Box or the BROADCAST HEADER Box.

    - Skip to Step 15.

3. If in COORDINATOR (CT) or PARTICIPANT (PT) mode:

    a. Enter data in *all* remaining fields in the BGDBM CONFIGURATION box: COMMANDS AND SIDS and BCST STARTUP.

    b. Enter information in the BROADCAST HEADER Box.

    c. When changing to either Coordinator or Participant mode, ensure the proper commands are set for both the local and FOTC command fields.

4. Enter the local command of the ship in the LOCAL CMD field.

    - *The LOCAL command should be set only once and never has to be changed.*

    - It is normally the same as the command used in manual transmissions from the group performing the FOTC operations.

    - For example, COMCARGRU ONE on the USS INDEPENDENCE would set the LOCAL command to INDEPENDENCE, not COMCARGRU ONE.

5. Enter the FOTC command in the FOTC CT CMD field.

    - In most situations, the FOTC command is unique in a battle group/force, such as BG DELTA FOTC. Here, the FOTC command can (and should) remain the same, regardless of the FOTC mode.

    - Some battle groups/forces use local commands for FOTC command. Under these circumstances, the FOTC command must be changed whenever FOTC responsibilities move from one platform to another.

    - Example: When FOTC control shifts from the USS FORRESTAL to the USS SPRUANCE, everyone in the battle group must change the FOTC command to SPRUANCE at the planned FOTC shift time. Also, the USS FORRESTAL must change the toggles from COORDINATOR to PARTICIPANT and the USS SPRUANCE must change the toggles from

PARTICIPANT to COORDINATOR. For all ships, the
LOCAL command never changes.

6.   Enter the OTCIXS SID of the FOTC Coordinator in the FOTC CT SID
     field.

        -   This SID is used by anyone sending a message directly to
            FOTC. The FOTC SID field is used in normal AFLOAT FOTC
            operations.

        -   This field should be left blank or contain zeroes if a system is
            listening to FOTC messages received from a communications
            channel other than OTCIXS.

        -   The FOTC SID changes whenever FOTC shifts from one
            platform to another (even when the FOTC command does not
            change), because every platform has a unique SID assignment.

7.   Enter the FOTC Broadcast SID in the FOTC BCST SID field.

        -   FOTC Coordinators *send* FOTC data on this SID.

        -   FOTC Participants *receive* their FOTC data from this SID.

8.   An entry is automatically placed in the SOURCE XREF TABLE,
     consisting of three parts:

        -   XX (XREF code identifying messages from the FOTC
            controller)

        -   FOTC Command (value in FOTC CT CMD field)

        -   FOTC's SID (value in FOTC CT SID field)

9.   In the BCST STARTUP Box:

        a. Choose a knob to specify the type of data sent at broadcast
            startup (new only or all unsent).

        b. Toggle the AUTOSTART checkbox ON if the broadcast should
            begin at system startup. It is a good idea to always have the
            AUTOSTART Box selected when operating in the FOTC
            environment.

        c. Set the cycle time (in minutes) for messages to be broadcast.
            When the FOTC Broadcast is ON, the FOTC Coordinator
            sends track database changes at specified intervals.

10. Specify the BROADCAST HEADER information using one of these
     methods:

        -   Enter the data in the BROADCAST HEADER fields in this
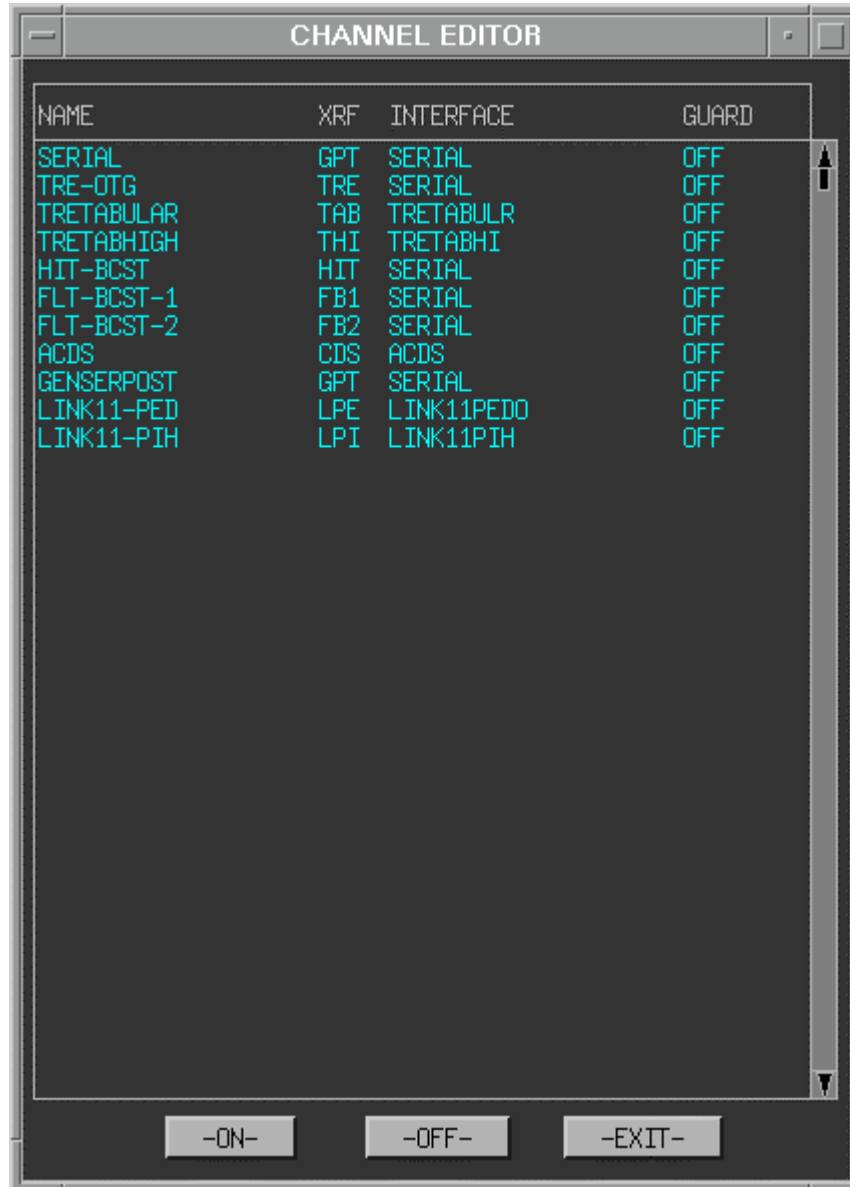   window.

-     Use the RECALL HEADER pop-up option to recall previously saved header information.

-     Use the RECALL DEFAULT HDR pop-up option to recall a previously-created default header.

11.   If entering header data, in the BROADCAST HEADER FM field:

-     FOTC Coordinator: enter the FOTC command.

-     FOTC Participant: enter the local command.

-     If the auto-forward table contains a match for the value entered in this field, the auto-forward entry will appear in the DESTINATION CHANNELS Box. (It may be necessary to press RETURN.)

12.   If entering header data, in the BROADCAST HEADER TO field:

-     FOTC Coordinator: enter the battlegroup command.

-     FOTC Participant: enter the FOTC command.

-     Five fields are provided for the message destinations. The FOTC header must have at least one message destination.

-     Each destination addressee (TO:) must have a corresponding entry in the AUTO FORWARD table, which is reflected in the DESTINATION CHANNELS Box.

13.   If entering header data, toggle the radio buttons to select a CLASSIFICATION and PRECEDENCE for the broadcast header.

14.   (Optional) User the SAVE HEADER pop-up option to save the BROADCAST HEADER settings.

15.   The DESTINATION CHANNELS Box reflects information from the AUTO FORWARD TABLE (COMMS menu) that matches entries in the FM and TO fields.

-     If nothing is shown in this box, no messages will be sent from the broadcast.

-     Double-check the header information in the AUTOFORWARD TABLE .

-     Information in this box is view-only and cannot be edited.

16.   (Optional, described in *FILTER*) Create a filter to identify a geographic area or the type of tracks to be monitored.

17. (Optional, described in *UPDATE TOGGLES*) Use the UPDATE TOGGLES pop-up option to specify:

- Automatic new track or update during correlation.

- Geofeasibility checking.

- Use of BGDBM STN.

18. (Optional, described in *GUARD SETTINGS*)—allows only designated participants to broadcast updates for a given channel.

19. Click OK to save the settings, or CANCEL to discard them.

- If the AUTOSTART checkbox is set and the FOTC Broadcast is not currently running, the broadcast automatically starts when OK is clicked.

> FILTER—identifies a geographic area or the type of tracks to be monitored.

1. Click FILTER (or use the OUTPUT FILTERS pop-up option) to open the DATABASE SEARCH window.

a. This same window appears when using the SEARCH option.

b. In this instance, the window is used to isolate a region of interest for the broadcast, or to choose a track type or CAT/THREAT type for tracks that are to be monitored.

2. Use the fields, checkboxes, and radio buttons on this window to choose the specific geographic area or the specific track types to be monitored.

3. Click OK to accept entries, or click CANCEL to discard them.

> GUARD SETTINGS (pop-up option)—opens the CHANNEL EDITOR window to set parameters so that only a designated participant can broadcast updates for a given channel (guard), and that participant will broadcast all updates from the given channel.

About the CHANNEL GUARD option

- **Only** a FOTC participant can use this option. If the CT or a non-participant chooses the option, a warning window appears stating that "Only a FOTC participant is authorized to change Guard settings."

- Setting Guard designations helps to correct network overload caused by excessive track updates from participants within a BGDBM network.

• Allows the FOTC coordinator to designate a participant to maintain the tactical picture for selected channels.

```
CHANNEL EDITOR                      ▫ □

 NAME              XRF   INTERFACE        GUARD
 SERIAL            GPT   SERIAL           OFF      ▲
 TRE-OTG           TRE   SERIAL           OFF
 TRETABULAR        TAB   TRETABULR        OFF
 TRETABHIGH        THI   TRETABHI         OFF
 HIT-BCST          HIT   SERIAL           OFF
 FLT-BCST-1        FB1   SERIAL           OFF
 FLT-BCST-2        FB2   SERIAL           OFF
 ACDS              CDS   ACDS             OFF
 GENSERPOST        GPT   SERIAL           OFF
 LINK11-PED        LPE   LINK11PEDO       OFF
 LINK11-PIH        LPI   LINK11PIH        OFF




                                                  ▼

        -ON-          -OFF-          -EXIT-
```

Note: A participant can set Guard status for each communications channel that appears in the CHANNEL EDITOR window.

>   To use the CHANNEL EDITOR Window:

1.   Select the channel from the window's scroll list.

-   Channels listed in the CHANNEL EDITOR window are the same as those displayed in the COMMUNICATIONS window.

- Channels added or deleted via the COMMUNICATIONS window will be reflected in the CHANNEL EDITOR window.

- Channels that *cannot* have their Guard status changed will not be displayed in the CHANNEL EDITOR window.

2. Click ON to activate GUARD. (Note: Default guard status is OFF for all participants.)

3. To turn OFF a GUARD setting, select the channel from the list and click OFF.

4. Click EXIT to return to the EDIT BGDBM CONFIGURATION Window. If EXIT is clicked before ON or OFF, no changes are made to channel setting status.

CHANNEL EDITOR Window Fields

NAME

Channel name
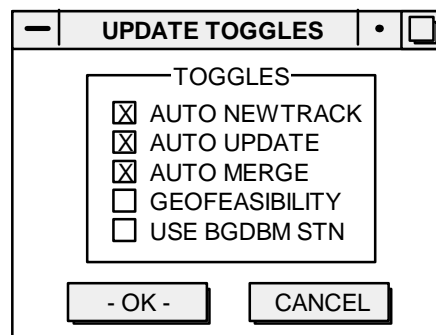
XRF

Channel cross-reference

INTERFACE

Interface type.

GUARD

Indicates if GUARD is enabled or disabled for that channel.

> UPDATE TOGGLES (pop-up option)—opens a window containing checkboxes to specify whether tracks should be automatically created or updated during correlation.

```
┌──┬─────────────────────┬───┬──┐
│ ─│   UPDATE TOGGLES    │ · │ ▢│
├──┴─────────────────────┴───┴──┤
│   ┌──────TOGGLES──────────┐   │
│   │ ☒ AUTO NEWTRACK       │   │
│   │ ☒ AUTO UPDATE         │   │
│   │ ☒ AUTO MERGE          │   │
│   │ ☐ GEOFEASIBILITY      │   │
│   │ ☐ USE BGDBM STN       │   │
│   └───────────────────────┘   │
│                               │
│    ┌─ OK ─┐    ┌ CANCEL ┐     │
│    └──────┘    └────────┘     │
└───────────────────────────────┘
```

The UPDATE TOGGLES window contains the following toggles:

1. AUTO MERGE—handles situations where two tracks exist in the system with no common unique attribute, even though they are really the same track. New information is later introduced that allows the system to automatically determine these are really the same track.

   - ON: An operator reprocess of tracks results in the reprocessed track updating another track in the system. If no attribute or position conflicts are found, the incoming report will update the designated FOTC track and auto merge any local tracks found as candidates to the FOTC track. (Default = ON.)

   - OFF: Reprocess tracks has no effect.

2. AUTO NEWTRACK

   - ON: A new track is automatically created for a candidate track that does not meet the requirements for merging with an existing track.

   - OFF: An ambiguity is created instead.

3. AUTO UPDATE

   - ON: A track position is automatically updated on the tactical display when a new report comes in.

   - OFF: The old track position remains on the display and the new position for the track also appears, as an ambiguity.

4. GEOFEASIBILITY

   - ON: A check is made for any new contact to be merged with an existing track to ensure the new position is geographically feasible.

   - OFF: A geofeasibility check is not made before a new report is merged with an existing track.

   - For example, if the new position for a ship is farther than the ship could possibly have traveled at top speed for the time interval between reports, the new contact will not be merged with the existing track.

   - Described in *Checking Geofeasibility*.

5. USE BGDBM STN

   - If the FOTC broadcast involves ships with pre-2.0 versions of the software, this checkbox should be clicked ON.

   - If the FOTC broadcast involves only ships with 2.0 software or higher versions, leave this checkbox OFF (blank).

EDIT BGDBM CONFIGURATION Window Fields

BGDBM MODE Box

COORDINATOR (CT)
FOTC (Force Over-the-Horizon Track Coordinator). All incoming contact reports are sent to the FOTC Coordinator ship where they are processed and broadcast to all FOTC participants.

PARTICIPANT (PT)
FOTC participant.

NON-PARTICIPANT
Not a FOTC participant in the group of ships.

UID CORRELATION
If the UID CORRELATION knob is selected, every track in the system is assigned a UID number. When a track report enters the system:

1) The system attempts to correlate the track based on the UID number.

2) If a matching UID number is found, an update occurs for this track.

3) If no matching UID number is found, or the report contains no UID number, then standard correlation is performed.

4) If a positive correlation occurs, the matching track is updated by the report.

5) If the incoming report had a UID already, a track merge takes place. The merge message is transmitted to all track broadcasts with your system UID value as the master track UID.

6) If a positive correlation does not occur, then either an ambiguity or a new track is created. In either case, a UID value is assigned if one is not already present.

Therefore, no track in the system, whether in an ambiguity state or not, exists without an assigned UID value.

COMMANDS AND SIDS Box

Use these fields only if in FOTC Coordinator or Participant mode.

LOCAL CMD
Local command of the ship.

FOTC CT CMD
FOTC command.

FOTC CT SID
The OTCIXS SID of the FOTC Coordinator.

FOTC BCST SID
FOTC Broadcast SID.

BCST STARTUP Box

Use these fields only if in FOTC Coordinator or Participant mode.

SEND NEW ONLY (Radio button)
On broadcast startup, no track data is sent.

SEND ALL UNSENT (Radio button)
On broadcast startup, sends all track data not previously sent.

AUTOSTART
Use the AUTOSTART checkbox to specify whether the broadcast is
turned on at startup.

If the AUTOSTART checkbox is set and the FOTC Broadcast is not
currently running, the broadcast automatically starts when OK is clicked
to save the changes in the EDIT BGDBM CONFIGURATION window.

If the AUTOSTART checkbox is not set and the FOTC Broadcast is not
currently running, use the BROADCASTS option to manually start the
broadcast.

CYCLE RATE
Set the time interval (in minutes) between transmissions of the broadcast
beginning at broadcast startup.

BROADCAST HEADER Box

Use these fields only if in FOTC Coordinator or Participant mode.

The BROADCAST HEADER Box specifies broadcast recipients and other
transmission information. This information appears in the header of the outgoing
broadcast messages.

Enter information into the fields and click the applicable radio buttons to create a
new message header. Use options from the pop-up menu (described later in this
section) to save the header setup or to recall an existing header.

FM
FOTC Coordinator: Enter the FOTC command.

FOTC Participant: Enter the local command.

If the auto-forward table contains a match for the value entered in this field, the auto-forward entry will appear in the DESTINATION CHANNELS Box. (It may be necessary to press RETURN.)

TO

Five fields are provided for the message destinations. Enter individual sites or commands. Information depends on the FOTC mode.

• FOTC Coordinator: Enter the battlegroup command.

• FOTC Participant: Enter the FOTC command.

The FOTC header must have at least one message destination.

• Each destination addressee (TO:) must have a corresponding entry in the AUTO FORWARD table, which is reflected in the DESTINATION CHANNELS Box.

CLASSIFICATION Box

UNCLASSIFIED

CONFIDENTIAL

SECRET

SECRET NF (secret no foreign)

TOP SECRET

Classifications appear in blue if they are not available on a machine. There are three areas where a security classification is assigned:

• Local Area Network (LAN)—the LAN classification is set when the software is installed and can only be changed by reloading the software.

• Workstation—the workstation classification is set by the Security Manager and can be modified at any time.

• User—the user classification is set when the user account and role is created by the security administrator.

PRECEDENCE Box

ROUTINE

PRIORITY

IMMEDIATE

FLASH

DESTINATION CHANNELS Box

SOURCE

Source type and specific source (if appropriate) that will be forwarded for a message.

CHANNEL
Message channel used to forward the message.

SID1-SID5
SID1 through SID5 indicates the SIDS where the message will be sent.

Checking GEOFEASIBILITY

To determine the geographic feasibility of a report (assuming all other correlation criteria are satisfied):

1. The correlator checks the new report and the previous report for the track.

2. If either report is an LOB (line of bearing) report, or if either has an unreported AOU, geofeasibility is not checked and the new report is merged with the existing track.

3. If both reports have an AOU, the correlator calculates the distance between the closest points of the AOUs for the two reports.

4. The correlator determines the speed it would take for the track to travel from the first point to the second point.

5. This speed is compared to a table of speeds for different track types to determine geofeasibility. The following values are used:

    AIR = 1000 knots

    LAND = 60 knots

    UNK, NAV, SUB = 30 knots

    MER, FSH = 25 knots

6. If the calculated speed of the track is less than the value in the table, the new report is considered geofeasible and it is merged with the existing track.

7. If the speed is greater than the value in the table, the new report is not geofeasible, and the new report becomes an ambiguity.

Multi-FOTC Mode

A unit configured for multi-FOTC mode can show a tactical picture that consolidates input from more than one FOTC Coordinator.

Points to Consider for Multi-FOTC Mode

> **Warning:** It is *strongly* recommended that Non-participant mode be used when working in a multi-FOTC environment.

- A multi-FOTC system acts as a FOTC Participant when dealing with data from the coordinators, who are called "pseudo-FOTCs" to distinguish them from the single FOTC Coordinator in a normal FOTC environment.

- The system *does* allow multi-FOTC in PT, CT, or in UID mode, but this can result in unexpected track deletions and merges that cannot be undone.

- While in FOTC CT or PT mode, no pseudo-FOTC can delete a track from the database; however, merge, DPOS, and DLOB messages are processed.

- If assigned to be in CT mode, make sure that pseudo-FOTC's area of interest *does not* overlap your area of interest. If the area of interests overlap, don't use multi-FOTC mode.

How to Set Up Multi-FOTC Mode

To set up a multi-FOTC environment, add an entry to the SOURCE XREF TABLE for each pseudo-FOTC.

To access this window: TRACKS menu **:** TRACK TABLES option **:** SOURCE XREF TABLE suboption **:** (ADD button).

```
┌───┬─────────────────────────┬───┬───┐
│ ─ │       ADD XREF          │ · │ ▢ │
├───┴─────────────────────────┴───┴───┤
│  ┌────────────────────────────────┐ │
│  │ XREF . . . . . . .   . . . .    │ │
│  │ COMMAND . . .  . . . . . . . . .│ │
│  │ SID . . . . . . . .   . . . .   │ │
│  └────────────────────────────────┘ │
│                                      │
│   ┌──────────┐    ┌──────────┐       │
│   │  - OK -  │    │  CANCEL  │       │
│   └──────────┘    └──────────┘       │
└──────────────────────────────────────┘
```

> To add the XREF entry:

1. Enter FOTC in the XREF field.

2. Enter the pseudo-FOTC command in the COMMAND field.

   a. A WARNING window may appear stating "a duplicate SOURCE XREF entry has been created."

b. Click OK each time the WARNING window appears.

3. Leave the SID field blank. Click OK.

4. Repeat steps 1-3 for each pseudo-FOTC command to monitor. The system can usually store 50 SOURCE XREF TABLE entries.

Using Multi-FOTC Mode

When working in multi-FOTC mode, the system accepts messages generated by *all* pseudo-FOTC Coordinators listed in the SOURCE XREF TABLE, *except in the following cases*:

Delete Track Messages: In cases where more than one pseudo-FOTC has been reporting a track, each pseudo-FOTC must send a message to delete that track.

- A track is not deleted from the multi-FOTC database until the last reporting pseudo-FOTC sends a delete message.

- Before that last message, each delete message causes the corresponding RTN to be removed from the multi-FOTC database.

- Note: A track will never be deleted by a pseudo-FOTC while in CT or PT mode.

Merge Messages: If more than one pseudo-FOTC has reported a track, only *one* pseudo-FOTC needs to send a merge message to make that merge happen in your multi-FOTC database.

Delete Position (DPOS) and Delete Line of Bearing/Bearing Box (DLOB) Messages: If more than one pseudo-FOTC has reported a track, only *one* pseudo-FOTC needs to send a DPOS/DLOB message to cause that deletion in your multi-FOTC database.

Advantages and Disadvantages of Multi-FOTC Mode

Multi-FOTC mode advantages*:*

• Allows battle group and battle force commanders to simultaneously see what each FOTC database in the battle group looks like.

• Commanders can quickly determine which tracks each FOTC CT has added, deleted, or merged.

Multi-FOTC mode disadvantages*:*

- Since you are technically not a FOTC participant, you may not receive notification of emergency FOTC shifts.

- Possibly miss important opnotes that contain FOTC management information, which can lead to track duplication in the database.

- Non-participants are unable to process FOTC SITREPs from any of the pseudo-FOTCs.

J Menu Options
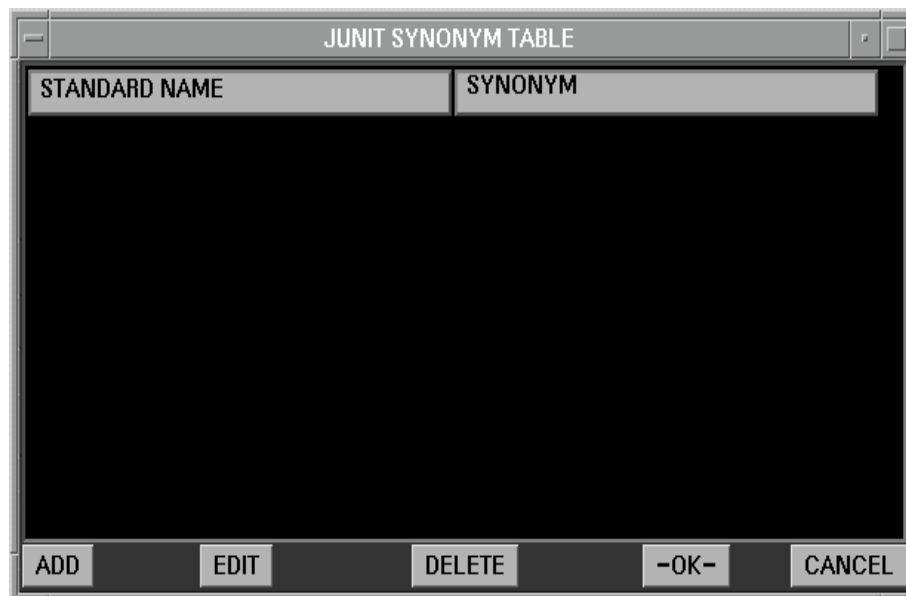
JUNIT SYNONYM TABLE

Notes

JUNIT Synonym Table

Menu Location: TRACK TABLES OPTION
See Also: N/A

The JUNIT Synonym option is used to maintain a database of synonyms to represent JUNIT operational units.

To access this window: TRACKS menu **:** TRACK TABLES cascading menu **:** JUNIT SYNONYM TABLE option.

JUNIT SYNONYM TABLE Window Actions

> ADD—a JUNIT synonym.

1. Click ADD to open the ADD JUNIT SYNONYM window.

2. Enter values in the fields.

   - More than one synonym can be entered for the same standard name on separate lines, but only one standard name can be entered for the same synonym.

3.   Click OK to accept changes, or click CANCEL to discard the changes. Clicking either button returns to the JUNIT SYNONYM TABLE window.

> ARCHIVE (pop-up option)—save TABLE information to another media (e.g. tape) for storage.

> CANCEL—discard changes and close the window.

> DELETE—one or more TABLE records.

1.   Select the records from the window.

2.   Click DELETE.

3.   If a confirmation window appears, confirm the delete.

> EDIT—a TABLE record.

1.   Select the record from the JUNIT SYNONYM TABLE window.

2.   Click EDIT to open an EDIT JUNIT SYNONYM window, which is functionally equivalent to the ADD JUNIT SYNONYM window.

3.   Click OK to save changes or click CANCEL to discard changes. Changes made appear in the TABLE window, but are not permanently saved until OK has been clicked from this window.

> OK—save the changes, close the window, and exit the window.

> PRINT (pop-up option)—print TABLE information.

> RESTORE (pop-up option)—retrieves stored TABLE information.

> SELECT ALL (pop-up option)—selects all entries in the list.

> UNSELECT ALL (pop-up option)—deselects all entries in the list.

JUNIT SYNONYMN TABLE Fields

STANDARD NAME

JUnit's name as it is plotted on the tactical display. Note: If a different standard name is entered for a synonym already in the list, a warning appears: "Identical Synonym Entry For Different Standard Name." If this window opens, click OK to continue.

SYNONYM

Synonym assigned to the standard name.

This page intentionally left blank.

P Menu Options

PIF DON'T CARE TABLE
Create and maintain a file of Pseudo-Identification Feature (PIF)
numbers.

PIF-DI NICKNAMES TABLE
Assign and maintain a list of IFF numbers and their corresponding
nicknames.

PRINT (TRACK) [ALT + P]
Print a hardcopy summary of track database information for the
selected tracks.

PRINTER CHOOSER
Assign default printers and manipulate the print queues.

Notes

PIF-DI Nicknames Table

Menu Location: TRACK TABLES Option

See Also: SYMBOL LABELS

Use the PIF-DI NICKNAMES option to assign and maintain a list of IFF and their corresponding nicknames.

About the PIF-DI NICKNAMES Option

- Nicknames are used to quickly identify the type of craft being reported from a Link report. This option is used *for Link tracks only* and has no effect on other track types.

- If a Link track enters the system with a Mode 2 IFF (PIF) number that matches a number in the PIF nickname table, the nickname in the table is assigned to the SHORT NAME field for the track.

- Tracks are frequently plotted on the tactical display based on the SHORT NAME field.

- If a PIF nickname exists, it is shown; if there is no PIF nickname, the NTDS track number is displayed instead.

- A PIF nickname is often more meaningful than the NTDS track number.

To access this window: TRACKS menu **:** TRACK TABLES cascading menu **:** PIF-DI NICKNAMES option.

NICKNAME Window Actions

> ADD—a nickname entry.

  1. Click ADD to open the ADD NICKNAME window (shown below).

  2. Select a value in the MODES box—DI, MODE1, MODE 2, or MODE 3.

  3. Enter values in the LOW and HIGH fields.

    a. LOW field: enter the number on the low end of an IFF code
       range.

    b. HIGH field: enter the number o the high end of an IFF code
       range.

  4. Click the list box beside the CATEGORY and THREAT labels to show
     available field values, or type a code into the field.

  5. Enter a new NICKNAME.

a. Only one nickname can be entered for the same IFF number. If the new nickname includes any numbers in an existing IFF code with the same category, threat, and mode, a WARNING window appears.

b. If OK is clicked in the WARNING window, the new nickname overrides the old one, causing a loss of all information associated with the old nickname.

6. Click OK to accept changes, or click CANCEL to discard the changes.

- If OK is clicked, and the table is full, a WARNING window appears to caution that "some entries must be deleted in order to enter additional ones."

- Clicking either button returns to the NICKNAMES window.

```
┌─┬──────────────────────┐
│▭│    Add NickName      │
├─┴──────────────────────┤
│    ┌──Modes───┐        │
│    │ ○ DI     │        │
│    │ ○ Mode 1 │        │
│    │ ◉ Mode 2 │        │
│    │ ○ Mode 3 │        │
│    └──────────┘        │
│  Low...    [     ]     │
│  High...   [     ]     │
│  Category... [UNK][▼]  │
│  Threat...   [PND][▼]  │
│  NickName...[        ] │
│  ┌──────┐  ┌────────┐  │
│  │  OK  │  │ Cancel │  │
│  └──────┘  └────────┘  │
└────────────────────────┘
```

> ADD AIRWING (pop-up option)—automatically add PIF nickname entries for all standard aircraft types from a particular aircraft carrier. Note: These entries are *always* MODE 2.

1. Choose ADD AIRWING to open the ADD AIRWING window (shown below).

2. Enter the first digit of the standard PIF code range for the airwing in the ENTER AIRWING Value from 0 to 7 field.

3. Click OK to automatically add the PIF nickname to the PIF nickname list, or click CANCEL to discard the action. Clicking either OK or CANCEL returns to the NICKNAMES window.

4.   If OK was clicked, the PIF nickname records for all standard aircraft types
      are listed in the NICKNAMES window.

5.   Airwing PIF nickname entries shown in the NICKNAMES window are not
      permanently saved until OK has been clicked from the this window.

```
┌─┬──────────────────┬─┐
│ ─│    Add Airwing   │ │
├──┴──────────────────┴─┤
│  Enter Airwing Number.│
│                       │
│  Value from 0 to 7 [ ]│
├───────────┬───────────┤
│    OK      │   Cancel  │
└───────────┴───────────┘
```
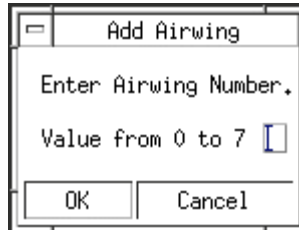
> ARCHIVE (pop-up option)—save NICKNAME information to another media
  (e.g. tape) for storage.

> CANCEL—discard changes and close the window.

> DELETE—one or more nickname records.

      1.   Select the nickname(s) from the window.

      2.   Click DELETE.

      3.   If a confirmation window appears, confirm the delete. Nicknames are not
            permanently deleted until OK is clicked from the NICKNAMES window.

> EDIT—a nickname.

      1.   Select the record from the TABLE window.

      2.   Click EDIT to open an EDIT NICKNAME window, which is functionally
            equivalent to the ADD NICKNAME window.

      3.   Click OK to save changes, or click CANCEL to discard changes. Clicking
            either button returns to the NICKNAMES window.

      4.   Changes made appear in the NICKNAMES window, but are not
            permanently saved until OK has been clicked from this window.

> OK—save the changes, close the window, and exit the window.

> RESTORE (pop-up option)—retrieves stored NICKNAME information. See Appendix A for a detailed description.

> SELECT ALL (pop-up option)—selects all entries in the list.

> UNSELECT ALL (pop-up option)—deselects all entries in the list.

NICKNAMES Window Fields

MODE

The mode assigned to the nickname.

LOW

Number on the low end of a range of IFF code.

HIGH

Number on the high end of a range of IFF code.

CAT

Category code for the PIF range.

THR

Threat code for the PIF range.

NICKNAME

Assigned nickname.

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Symbol Labels

Menu Location: PLOT CONTROL

See Also: AOU, ATTRIBUTE TOGGLES, BEARING/RANGE [F6], DEAD RECKON (track override), DECLUTTER (track labels), DR TRAILERS (track override), OVERLAYS, SET MASTER REF, SLASH TIMES, SPECIAL CONTROLS, SPEED LEADER (track override), STORED PLOT CONTROLS, SYMBOLS ON/OFF/DOTS, TRACK CONTROL, TRACKCONTROL STORAGE, TRACK GROUPS, TRACK TABLES, TRACK TYPE HILITES

Use the SYMBOL LABELS option to set the appearance of the labels—type, size, and number of characters—plotted with tracks.

To access this window: PLOT CONTROL menu **:** SYMBOLS LABELS option.

>   How to use the SYMBOL LABELS window:

1.   Select a symbol annotation (label), text size, and symbol size.

   a.   Click the radio buttons.

   b.   Enter the number of characters for the label in the TEXT SIZE box.

   c.   Click APPLY to see the results of the new settings on the display.

   d.   Repeat this process until the appropriate settings are achieved.

2.   Regarding SYMBOL ANNOTATION:

   -   Symbol annotation affects track *labels*.

   -   Default symbol annotation is the track's SHORT NAME.

   -   If an individual track has no value in the track database for the selected annotation, its label defaults to local track number (LTN).

   -   If track labels appear truncated on the display, check the number of characters displayed (NUM CHAR field in TEXT SIZE). Many combination labels (e.g., SHORTNAME/Lat-Long) require settings of 25-35 characters for all of the information to be shown.

3.   Regarding TEXT SIZE and SYMBOL SIZE:

   -   Defaults: Text size = SMALL; Symbol size = SMALL; number of label characters displayed = 15.

   -   Text size entered here also affects PIM track and formation labels.

4.   Click APPLY to accept new settings, or click EXIT to discard changes made since the last APPLY.

5.   When the labels are set, click EXIT to close the window.

> **Note:** Settings for symbol annotation and the number of symbol label characters can be overridden by the TRACKCONTROL option on an individual track's pop-up menu.

SYMBOL LABELS Window Fields

SYMBOL ANNOTATION Box

LOCAL TRACK # (LTN)
Local track number assigned by the system. This number begins with a specific alpha-character for the following track types:

T—Platform

A—Ambiguities

C—COMINT

L—Link

E—ELINT

U—Unit

B—Acoustic/Sub

F—FCS (Fire Control System)

R—RaycasV

S—SPA-25G

NR—Near Real-Time

FOTC TRACK # (FTN)
Force Over-The-Horizon Track Coordinator track number. Assigned by the system on the FOTC ship when in FOTC Controller mode.

UNIQUE ID (UID)
Unique identification number; used for ashore sites only. Begins with three letters that represents the site reporting the track, followed by a series of numbers to identify the track.

SYSTEM TRACK # (STN)
System track number, also known as the Naval Tactical Display System (NTDS) track number.
This 4-digit track number is exchanged with other ships and aircraft via Link-11 and other tactical data networks.

COMBAT SYSTEM TRACK
System Track Number, based on the Naval Tactical Data System or Advanced Combat Direction System local track number.

DISCRETE ID (DI)
Discrete Identifier (DI) number; four-digit octal code that represents hostile or unknown tracks. Usually assigned on a quarterly basis in each theater of operations.

MODE 1 IFF

A two digit code that is used to indicate the task/mission assigned to any vessel or aircraft. Friendly military only.

PIF/MODE 2 IFF

Personal Identification Feature (PIF) or Mode 2 number; a four digit, encrypted code that provides an exact ID for any vessel or aircraft. Friendly military only.

MODE 3 IFF

A four digit code used to indicate the task or mission of both military and commercial vessels and aircraft. May also be used for pseudo PIF codes during special operations.

Can be used to show emergency conditions within the aircraft: communications emergency, distress (hijack), or mechanical emergency due to catastrophe.

UNIT ID CODE (UIC)

Unit ID code number—for ashore sites only.

BE #

Basic Encyclopedia number, used for land emitters.

CMD-TRACK # (RTN)

Number enters the system from an incoming report and shows the originator's local track number (the received track number), along with the originator of the report as shown in the MSGID line of the message.

FLAG (COUNTRY CODE)

Two-letter code identifying the country associated with the track.

ALERT

Alert code for the track. Alert codes mean the following:

Alert Code	Meaning
HIT	High Interest Track
TGT	Target
SUS	Suspect Carrier
NSP	Cleared Suspect
. . .	No Alert

SHORT NAME

For most tracks, shows a default value of the first ten characters of the track name; for Link tracks, shows the NTDS track number; for COMINT tracks, shows a combination of PDDG and Raid Number data elements.

NAME

Name shown in the track's UNIT NAME field.

CLASS

Ship class or aircraft model/class designator.

TYPE

Code for ship type (for example, CGN).

HULL #

A 1–6 character alphanumeric entry assigned to the ship and shown on the ship's hull (e.g., A35, D51).

TYPE-HULL #

Ship type and hull number combined; helps track and plot ships of the same type.

SHORTNAME/TOE

Short \name for the track, combined with the latest report's time of event (TOE). TOE is also referred to as the DTG (date-time-group).

SHORTNAME/TIMELATE

Shortname for the track, combined with the amount of time elapsed (hours and minutes) since the last report.

SHORTNAME/# REPORTS

Shortname for the track, combined with the number of reports received for the track.

SHORTNAME/LAT-LONG

Shortname for the track, combined with the latitude and longitude of the track's last reported position.

SHORTNAME/BRG-RANGE

Shortname for the track, combined with bearing and range to the Master Reference track (in nautical miles).

SENSOR

Sensor type used to detect the track at its last reported position.

SOURCE

Two-letter OTCIXS station source code (for example, AM=America). Letters are taken from the Source XREF Table, which can be viewed from the SOURCE XREF TABLE option.

Can be used to show a 6-character, alphanumeric entry for the reporting source or system. (Examples: CASREP, MOVREP, Wizard.)

TRADEMARK

Unique identification assigned to a track to enhance the track evaluation. Normally used for submarines, this is the case or designation number identifying unknown or hostile submarines.

SCONUM

Naval vessel identification number (alphanumeric code) assigned by the Office of Naval Intelligence.

SCONUM (Ship's Control Number) is sometimes referred to by its old name—NOIC ID. SCONUMs are typically of the form A#####.

CALLSIGN (IRCS)

International radio call sign assigned to the ship is an 8-character alphanumeric code.

ELNOT

An acronym for ELINT Notation, the electronic emitter code assigned to a radar by the detecting sensor.

This 5-character alphanumeric code usually begins and ends with a letter. Some examples include:

A###Y	=	Airborne (communist-bloc)
B###Y	=	Land-based (communist-bloc)
C###Y	=	Shipborne (communist-bloc)
F###Y	=	Coastal Defense (communist-bloc)
L0000	=	Unknown emitter type
T####	=	Special interest emitter
N###Y	=	US military emitter
M###Y	=	Commercial shipping emitter

EMITTER

Radar name (for example, RAY1500, SPN-43, HEADNET).

RF

Radio frequency, measured in megahertz (MHZ).

PRI

Pulse repetition interval (PRI), measured in microseconds.

PRF

Pulse repetition frequency (PRF), measured in pulses per second.

SCAN RATE

Scan rate, measured in seconds per rotation (SPR), or in cycles per second (HZ).

LAT-LONG

Most recently reported position (latitude/longitude).

BRG-RANGE

Bearing and range of the track, in nautical miles, from the Master Reference Track.

DI NICKNAME

Nickname for the DI (discrete identifier) number; four-digit octal code used to represent hostile or unknown tracks.

MODE 1 IFF NICKNAME

Nickname for the two-digit code that is used to indicate the task/mission assigned to any vessel or aircraft.

MODE 2 IFF NICKNAME

Nickname for the four-digit, encrypted code that provides an exact ID for any vessel or aircraft.

MODE 3 IFF NICKNAME

Nickname for the four digit code used to indicate the task or mission of both military and commercial vessels and aircraft.

NO LABEL

Indicates that the symbol is to appear without a label.

TEXT SIZE Box

Specifies the text size for symbol labels (tiny, small, medium, large, or huge).

Defaults: Text size = SMALL; number of characters = 15.

SYMBOL SIZE Box

Specifies the track symbol size (tiny, small, medium, large, or huge).

Default: Symbol size = SMALL.

Notes

T Menu Options

TADIL A/LINK-11

Provides the capability of transmitting and receiving Link-11 messages via the Link-11 interface. T-3

TEN (10) PT HISTORY

Set the display status for plotting a track's history reports. T-5

THREE-D (3D) VIEWER

Render a 2-D map in three dimensions using DTED data T-7

TOP 25 PROCESSES

Top processes running on the workstation at a given time. . . . T-11

TRACK CONTROL

Enables users to set display controls for an individual track or selected track. T-15

TRACK CONTROL (TRACK OVERRIDE)

Set plot control options for the track which will override any default settings. T-19

TRACKCONTROL STORAGE

Save or discard track control settings between sessions. T-23

TRACK GROUPS

Plot groups of tracks together and highlight them in designated colors. T-25

TRACK HOOK

Provide specific, dynamically updated track information for a selected track. T-34a

TRACK STATUS

View the number of tracks in the system. Tracks are shown by category, with totals listed. T-35

TRACK SUMMARIES

View summaries of different track types in the system. T-37

TRACK TABLES
Maintain tables and databases for many of the functions used by the system.

TRACK-to-PIM
Turn history points for a track into a PIM track

TRACK TYPE HILITES
Set colors for specified track types.

TRACK TYPE TOGGLES
Specify the type of tracks that appear on the tactical display.

TROUBLE REPORTS
Method to report errors that occur within the system.

TYPE-CATEGORY TABLE
Maintain unit type codes and categories for all unit types.

Track Hook Window

Menu Location: TRACKS and Track Right Pop-Up

See Also: EDIT (Track)

Use the TRACK HOOK WINDOW option to provide specific, dynamically updated track information for a selected track.

The option provides data for various track types, including the following:

- Emitter/ELINT
- LINK/ACDS/NRTI
- Platform
- Unit
- Acoustic/Sub*
- FCS*
- RAYCAS V*
- SI*
- SPA-25*

* Note: Only default information fields are available for these track types; i.e., the information is not customized for the specific track.

About the Track Hook Window Option

- The TRACK HOOK WINDOW option can be accessed in two ways:

    1) From the TRACKS pull-down menu. Track information shown is for Own Track.

    2) From the tactical display. Select a track and click the right mouse/trackball button to show the track's pop-up menu.

- Window is dynamically updated as new track reports are processed, keeping a near-real-time display of the most current track information.

- Each time a new track is selected from the tactical display, the window will update to show information for the selected track. In this way multiple tracks can be viewed using a single TRACK HOOK window.

- Window can be resized to obscure fields that are not required. The window can also be moved anywhere within the desktop area.
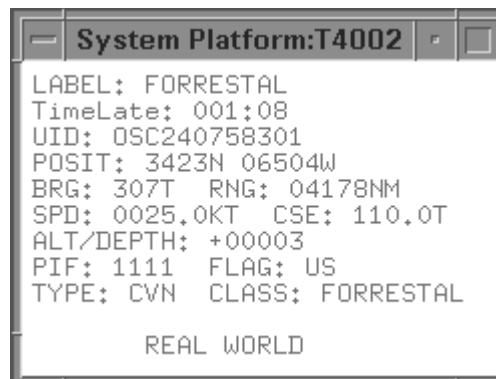
- Multiple windows may be opened.

- Window may be "locked" to monitor a high-interest track. See *TRACK HOOK WINDOW Pop-up Menu*.

- View any tracks associated with the selected track through this window. See *TRACK HOOK WINDOW Pop-up Menu.*

Note: The TRACK HOOK WINDOW option cannot be used to edit, delete, or perform any modifications to the track database.
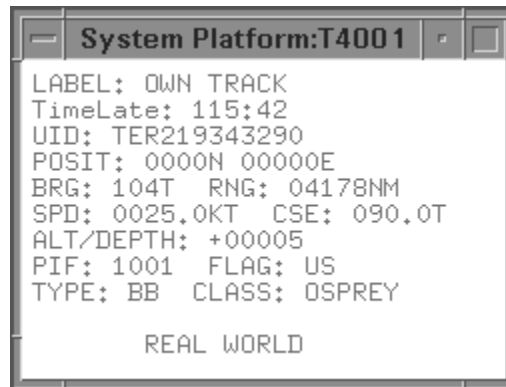
Track Hook Window

Information shown in the TRACK HOOK WINDOW is collected from the most current data available on the selected track and is automatically updated as new track updates are received.

From the tactical display: Select a track from the tactical display and choose the TRACK HOOK WINDOW option from the track's right pop-up menu to open a window that displays information for the selected track. The figure below shows information for a Platform track.


```
┌──────────────────────────────────┐
│ □ │ System Platform:T4002 │ ▫ │ □ │
├──────────────────────────────────┤
│ LABEL: FORRESTAL                 │
│ TimeLate: 001:08                 │
│ UID: OSC240758301                │
│ POSIT: 3423N 06504W              │
│ BRG: 307T   RNG: 04178NM         │
│ SPD: 0025.0KT   CSE: 110.0T      │
│ ALT/DEPTH: +00003                │
│ PIF: 1111   FLAG: US             │
│ TYPE: CVN   CLASS: FORRESTAL     │
│                                  │
│         REAL WORLD               │
└──────────────────────────────────┘
```

From the TRACKS pull-down menu: If no track is selected on the tactical display, the Track Hook window that opens shows the system "default" information for Own Track, as represented in the following figure: .

```
┌──┬──────────────────────────┬──┬──┐
│ ─│  System Platform:T4001    │ ▫│ □│
├──┴──────────────────────────┴──┴──┤
│ LABEL: OWN TRACK                   │
│ TimeLate: 115:42                   │
│ UID: TER219343290                  │
│ POSIT: 0000N 00000E                │
│ BRG: 104T   RNG: 04178NM           │
│ SPD: 0025.0KT   CSE: 090.0T        │
│ ALT/DEPTH: +00005                  │
│ PIF: 1001   FLAG: US               │
│ TYPE: BB   CLASS: OSPREY           │
│                                    │
│           REAL WORLD               │
│                                    │
└────────────────────────────────────┘
```

The TRACK HOOK WINDOW title bar reflects the following:

- Chart of origin (e.g., **System**, as shown in the figure above).

- Type of the track (i.e., Platform, Unit) separated from the local track number by a colon.

- Local track number (e.g., **T4001**).

- Text color reflects the threat code associated with the track. For more details on threat colors, see the *Software User's Manual for Unified Build 3.0.2.5 (TMS/UCP)*.

Track Hook Window Fields

Fields shown in the TRACK HOOK window depend on the track type, although there are certain fields that appear regardless of the track type. The list below shows all fields that may be displayed. For more information on track window fields, see the *Software User's Manual for Unified Build 3.0.2.5 (TMS/UCP)*.

If a field is present in the track type and there is no information available for that field, the entry is displayed as a series of dots (**......**).

ALT
Altitude for the track.

ALT/DEPTH
Altitude or depth (in feet) of the track at report time.

BRG
Bearing (in whole nautical miles) of the track from the Master Reference track. See *Set Master Ref* option in the *Software User's Manual for Unified Build 3.0.2.5 (TMS/UCP)*.

CLASS
Unit class for the track.

CSE

Course for the track in degrees true.

ECH

Organizational level of the unit.

ELNOT

ELINT notation. This five-digit field begins with an alpha character, followed by three numbers, and ends with another alpha character.

EMITTER NAME

Radar name (for example, RAY1500, SPN-53, HEADNET).

FLAG

Two-character country code for the nationality of the track. Each flag entry also has an associated threat code.

LABEL

Reflects the current label for the track's symbol on the tactical display.

MODE 1

Two-digit code used to indicate the task and/or mission assigned to any vessel or aircraft; for friendly military only.

MODE 2

Mode 2 (or PIF) number, a four-digit encrypted code that provides an exact ID for a vessel or aircraft; for friendly military only.

MODE 3

Four-digit code used to indicate the task and/or mission of both military and commercial vessels and aircraft. May be used for pseudo PIF codes during special operations. Mode 3 can also denote emergency conditions within a craft, such as: communications emergency, distress (hijack), or mechanical emergency due to catastrophe.

MODE 4

Contains the interrogation status; U.S. military only. Values are:

INV RSP   invalid response

NS   not interrogated

NO RSP   no response

VLD RSP   valid response

. . .   data is incorrect (outside the accepted range) or indecipherable

ORG TYPE

Organization type of the unit.

PIF

Pseudo Identification Feature (PIF) or Mode 2 number, a four-digit encrypted code that provides an exact ID for a vessel or aircraft; for friendly military only.

POSIT

Position of the track generally displayed in terms of latitude and longitude.

PU

Participating unit. This identifies the reporting source.

RNG

Range (in whole nautical miles) from the Master reference track.

SPD

Speed of the track in knots.

STN

System track number (for Navy Link-11 tracks, also know as the Naval Tactical Display System (NTDS) track number). This 4-digit track number is the track identifier in the link on which the track was reported.

TIMELATE

Amount of time elapsed since the most recent report was received.

TRACK QUALITY

Track Quality number. NON-REAL TIME TRACK or a number between 1 and 7 displayed in this field represents the quality of the track report as reported in the LINK. The higher the number, the more accurate the report.

TYPE

Code for the vessel type for the track.

UIC

Unit ID number.

UID

Unique identifier for the track. Begins with three letters representing the site that reported the track, followed by a series of number to identify the track.

Track Hook Window Pop-up Menu

Use the TRACK HOOK window's pop-up menu to lock a window on a track of interest and to show any tracks that are associated with the currently selected track.

```
HELP
Lock on Trk
Associations ▶
EXIT
```

TRACK HOOK Window Pop-up Actions

> HELP—not currently implemented.

> LOCK ON TRK/RELEASE LOCK—lock the window on a particular track of interest, then release the lock. Without the lock feature engaged, every time a "new" track is selected, the window clears the information for the previously selected track and begins to dynamically update the newly selected track.

1. Select the track of interest, then select TRACK HOOK WINDOW from the track pop-up.

2. Select LOCK ON TRK from the window's pop-up menu.

   - The window is now locked onto the selected track.

   - The window will remain locked until it is unlocked using the pop-up option *or* until the track is deleted from the system.

   - A window may be locked and unlocked from the same or different tracks multiple times.

3. Unlock the window by selecting RELEASE LOCK from the pop-up menu.

   - The window remains on the screen, but it is no longer locked to a single track.

Note: If a TRACK HOOK WINDOW is *not* locked onto the track and the track is deleted, then the window will immediately clear the track information and return to the default display of the Own Track information.

> ASSOCIATIONS—cascading menu that shows any tracks that are associated with the current track. To view associated tracks:

1. Select ASSOCIATIONS from the pop-up menu and choose an available track number from the cascading menu. (If there are no track numbers on the cascading menu, there are no tracks associated with the selected track.)

    -   If multiple track numbers appear on the cascading menu, only one track may chosen to view at a time.

2. When an associated track has been selected from the pop-up menu list, the TRACK HOOK WINDOW resets itself to show information for the associated track.

    -   If the window is locked on a selected track and an associated track is selected, the lock transfers itself to the associated track.

3. To return to the originally selected track, select RELEASE LOCK from the TRACK HOOK WINDOW pop-up menu.

    -   The window is unlocked from the associated track and may be used to view other tracks or to reselect the track of interest.

>   EXIT— the TRACK HOOK window, whether or not it is currently locked onto a selected track

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Track Tables

Menu Location: TRACKS

See Also: EDIT (track), FILE STATUS, FOTC SITREP

The TRACK TABLES option controls a cascading menu accessing tables that pertain to tracks. This menu is "split" into two groups—the top group refers mainly to ELINT tracks; the bottom group relates to other tracks in the system.

Table Descriptions

The following tables are described in their applicable alphabetical section in this user's manual:

HFDF

AEN

ELINT Configuration

ELNOT Synonym

ELNOT Version

CI Compatibility

Radar Function

RF Don't Care

Scan Type

Callsign Don't Care

PIF Don't Care

Ship Synonyms

Source XREF

Flag-Threat

Type-Category

Ship Class

Sensor

Source Code

JUNIT Synonym

PIF-DI Nicknames

Notes